

Fort Richardson State Fish Hatchery Sportfish Division, ADF&G Anchorage, Alaska

Construction Cost Estimate - Alternative I Conceptual Estimate November 3, 2004



1225 E. International Airport Road, Suite 205 Anchorage, Alaska 99518 907.561.0790

Prepared for:

CH2M Hill

301 West Northern Lights Blvd, Suite 601 Anchorage, Alaska 99503-2691 907.278.2551

Construction Cost Estimate - Alternative I

Conceptual Estimate

November 3, 2004

General Information

Based on 2006 procurement/2006 construction.

Documents

Concept Design

Notes and Assumptions

- 1 Labor rates based on Davis Bacon, 40 hours/week.
- Weather, logistics and construction time window has been considered, assuming a spring start of construction.
- 3 Local contractor with limited room and board.
- 4 Furniture, Fixtures & Equipment are not included in the estimate.
- 5 This estimate is for construction cost only. No Design, Engineering, Construction Administration or other Owner costs included in this estimate.
- 6 Process and Water treatment equipment estimates provided by PRAqua Technologies Ltd.

Description	Qty	Unit	Estimated Cost	Totals	Estimated Cost with Genl Requirements Distributed	Estimated Cost Plus Contingencies
GENERAL REQUIREMENTS	24	MTHS		\$4,821,814		
GENERAL REQUIREMENTS			\$4,821,814			
SITE DEVELOPMENT	4	ACRE		\$1,715,564	\$1,999,007	\$2,462,594
SITE PREPARATION, DEMOLITION SITE DEVELOPMENT SITE IMPROVEMENTS SITE UTILITIES			\$464,624 \$740,772 \$300,774 \$209,394			
TROUT HATCHERY, BUILDING 1	62,000	SF		\$6,131,654	\$7,144,718	\$8,801,640
CONCRETE MASONRY METALS WOOD AND PLASTIC THERMAL & MOISTURE PROTECTION DOORS AND WINDOWS FINISHES SPECIALTIES EQUIPMENT FURNISHINGS SPECIAL CONSTRUCTION CONVEYING MECHANICAL ELECTRICAL			\$925,668 \$46,879 \$5,000 \$50,167 \$132,775 \$233,215 \$30,581 \$26,093 \$2,911 \$2,304,698 \$36,112 \$1,285,382 \$1,052,173			

Description	Qty	Unit		Estimated Cost	Totals	Estimated Cost with Genl Requirements Distributed	Estimated Cost Plus Contingencies
SALMON FACILITY (BUILDING 2), & ADMIN	66,19	SF			\$6,713,538	\$7,822,740	\$9,636,901
CONCRETE				\$1,054,973			
MASONRY							
METALS				\$46,281			
WOOD AND PLASTIC				\$5,000			
THERMAL & MOISTURE PROTECTION				\$58,631			
DOORS AND WINDOWS				\$173,217			
FINISHES				\$363,140			
SPECIALTIES				\$44,765			
EQUIPMENT				\$26,093			
FURNISHINGS				\$9,384			
SPECIAL CONSTRUCTION				\$2,442,780			
CONVEYING				\$36,112			
MECHANICAL				\$1,222,277			
ELECTRICAL				\$1,230,885			
XISTING FACILITY RENOVATION & UPGRAD	E! 1	LS			\$1,997,507	\$2,327,532	\$2,867,308
Water Aeration Building				\$93,475			
Well Field and Water Distribution System				\$1,802,329			
Shop Complex				\$67,691			
Water Filtration Building				\$34,012			
QUIPMENT	1	LS			\$12,626,179	\$14,712,259	\$18,124,161
Hatchery Equipment				\$12,626,179			
Subtotal:					\$34 DDG 256	\$34,006,256	\$41,892,604
Estimating Contingency:			15.0%		\$34,006,256 \$5,100,938	⊅ 34,000,∠36	⊅41,092,004
Escalation For Inflation: 24 Mths	. @	3.5%	7.1%		\$2,785,410		
Assumes a midpoint of 01/2007	,	J.J /0	7.170		Ψ2,100,410		
Total Estimated Construction Cost:					\$41,892,604		

Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
	ENERAL REQUIREMENTS	24	MTHS								
2	Project Management										
3	Project Manager - 40 Hrs/Week	106	WEEKS			40.000	4,240.0	\$296,800		\$296,800	\$296,800
4	Supervisor - 40 Hrs/Week	104	WEEKS			40.000	4,160.0	\$208,000		\$208,000	\$208,000
5	Quality Control - 40 Hrs/Week	104	WEEKS			40.000	4,160.0	\$152,880		\$152,880	\$152,880
6	Project Expeditor - 40 Hrs/Week	104	WEEKS			40.000	4,160.0	\$209,664		\$209,664	\$209,664
7	Time Keeper/Cost Control - 40 Hrs/Week	104	WEEKS			40.000	4,160.0	\$87,360		\$87,360	\$87,360
8											
9	Small Tools & Consumables	1	LS	\$102,020.00	\$102,020					\$102,020	\$102,020
10											
11	Equipment										
12	Pickup (2 Ea)	104	WEEKS						\$36,400	\$36,400	\$36,400
13	Forklift	100	WEEKS						\$75,000	\$75,000	\$75,000
14	Flatbed	100	WEEKS						\$37,500	\$37,500	\$37,500
15	Craning	26	WEEKS						\$42,250	\$42,250	\$42,250
16	ManLifts (3 Ea)	78	WEEKS						\$29,250	\$29,250	\$29,250
17											
18	Other Requirements										
19	Project Meetings	24	EA			4.000	96.0	\$3,528		\$3,528	\$3,528
20	Project Schedule										
21	CPM - Set Up	128,191	SF	\$0.05	\$6,410					\$6,410	\$6,410
22	Updates	23	MTHS	\$350.00	\$8,050					\$8,050	\$8,050
23	Project Layout	128,191	SF	\$0.05	\$6,410	0.004	512.8	\$18,845		\$25,255	\$25,255
24	Shop Drawings	120	HRS			1.000	120.0	\$4,410		\$4,410	\$4,410
25	Test Lab Services	100	EA	\$250.00	\$25,000					\$25,000	\$25,000
26											
27	Temporary Facilities										
28	Project Office Trailer	24	MTHS						\$28,800	\$28,800	\$28,800
29	Office Equipment/Supplies	24	MTHS	\$500.00	\$12,000					\$12,000	\$12,000
30	Project Tool Sheds	24	MTHS						\$4,800	\$4,800	\$4,800
31											
32	Project Safety Equipment	1	LS	\$27,210.00	\$27,210					\$27,210	\$27,210
33											
34											
35											

е				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
6											
7	Temporary Services										
8	Chemical Toilets (2 Ea @ 125)	24	MTHS	\$250.00	\$6,000					\$6,000	\$6,000
9	Power	24	MTHS	\$1,860.00	\$44,640					\$44,640	\$44,64
.0	Lighting	128,191	SF	\$0.02	\$2,564	0.002	256.4	\$12,923		\$15,487	\$15,48
.1	Water Use	24	MTHS	\$100.00	\$2,400	0.002		ψ·=,σ=σ		\$2,400	\$2,40
.2	Heat Temporary	8	MTHS	\$1,500.00	\$12,000					\$12,000	\$12,00
.3				* 1,00000	4 1 = , 5 5 5					4 1 = , 0 0 0	¥ : _, = ;
4	Cleaning										
5	Progressive	104	WKS	\$50.00	\$5,200	8.000	832.0	\$41,933		\$47,133	\$47,13
6	Final	62,000	SF	\$0.15	\$9,300			. ,		\$9,300	\$9,30
7	Windows	3,160	SF	\$0.25	\$790					\$790	\$79
8	Dumpsters	24	EA	\$460.00	\$11,040					\$11,040	\$11,04
.9	•										
0	Record Documents	1	LS	\$2,000.00	\$2,000					\$2,000	\$2,00
1	Operations and Maintenance Manuals	1	LS	\$500.00	\$500	24.000	24.0	\$882		\$1,382	\$1,382
2	Contract Closeout and Training	1	LS	\$2,500.00	\$2,500					\$2,500	\$2,50
3	Warranties and Bonds	1	LS	\$2,500.00	\$2,500					\$2,500	\$2,50
4											
5											
6											
7											
8											
9											
0											
1											
2											
3											
4		00/									# 0 400 00
5 6	General Contractor Overhead & Pr										\$2,423,96
6 7	General Contractor Bond & Insura	r 2.5%									\$818,08
, B	Subtotal: GENERAL REQUIREMEN	ITS: Cost	hased on 6	S2 000 SF	\$288,534		22,721.2	\$1,037,225	\$254 000	\$1,579,759	\$4,821,81
9	Average Unit Price for this division			72,000 OI	Ψ200,004		,,,_,,_	ψ1,001,220	Ψ204,000	ψ1,070,700	ΨΨ,021,01
0	Average Labor Rate for this division		•								

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
71											
72	SITE DEVELOPMENT	4.00	ACRE								
73	SITE PREPARATION, DEMOLITION	1	LS	\$1,000.00	\$1,000	142.857	142.9	\$7,202		\$8,202	\$8,202
74	DEMOLITION										
75	Concrete Raceways, 56' x 188'	10,528	SF								
76	Pump Out, Drain Down Raceways	5,615	GAL			0.002	11.2	\$581	\$281	\$862	\$991
77	Cut Piping at Grade, Cap,	1	LS			8.000	8.0	\$415		\$415	\$477
78	Remove Above Gr Equip, Appurts	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
79	Remove Connecting Piping,	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
	Electrical										
80	Demo Concrete, Slabs	195	CY	\$20.00	\$3,899	2.700	526.4	\$27,322	\$11,581	\$42,802	\$49,222
81	Demo Concrete, Walls	48	CY	\$20.00	\$969	4.000	193.8	\$10,059	\$3,633	\$14,661	\$16,860
82	Fill With NFS, Compact, Grade	1,716	CY	\$12.60	\$21,617	0.077	132.1	\$6,857	\$6,176	\$34,650	\$39,848
83											
84	Concrete Raceways, 75' x 188'	14,100	SF								
85	Pump Out, Drain Down Raceways	7,520	GAL			0.002	15.0	\$779	\$376	\$1,155	\$1,328
86	Cut Piping at Grade, Cap,	1	LS			8.000	8.0	\$415		\$415	\$477
87	Remove Above Gr Equip, Appurts	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
88	Remove Connecting Piping,	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
	Electrical										
89	Demo Concrete, Slabs	261	CY	\$20.00	\$5,222	2.700	705.0	\$36,592	\$15,510	\$57,324	\$65,923
90	Demo Concrete, Walls	52	CY	\$20.00	\$1,044	4.000	208.8	\$10,838	\$3,916	\$15,798	\$18,167
91	Fill With NFS, Compact, Grade	2,298	CY	\$12.60	\$28,952	0.077	176.9	\$9,182	\$8,272	\$46,406	\$53,367
92	, ,										
93	Broodstock Raceways, 113' x	10,905	SF								
	96.5'	,									
94	Pump Out, Drain Down Raceways	5,816	GAL			0.002	11.6	\$602	\$291	\$893	\$1,027
95	Cut Piping at Grade, Cap,	1	LS			8.000	8.0	\$415	•	\$415	\$477
96	Remove Above Gr Equip, Appurts	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
97	Remove Connecting Piping,	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
	Electrical		-				_	+ , -		* ,	+ /
98	Demo Concrete, Slabs	202	CY	\$20.00	\$4,039	2.700	545.2	\$28,298	\$11,995	\$44,332	\$50,982
99	Demo Concrete, Walls	42	CY	\$20.00	\$832	4.000	166.4	\$8,637	\$3,119	\$12,588	\$14,476
100	Fill With NFS, Compact, Grade	1,777	CY	\$12.60	\$22,391	0.077	136.8	\$7,100	\$6,397	\$35,888	\$41,272
101		- ,		Ţ. _ .00	+ ,,		. 50.0	Ţ.,. 	+ -,00.	+ - 5,000	÷ · · ,— · —
102	Broodstock Development Bldg	2,236	SF	\$3.36	\$7,513	0.100	223.6	\$11,606		\$19,119	\$21,987
.02	2. Codolook Borolopilloik Blug	2,230	- .	ψ0.00	ψ.,σ.σ	000		ψ,σσσ		Ψ.0,.70	Ψ=1,007

Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
400											
103 104	Visitor Center	2,311	SF	\$3.36	\$7,765	0.100	231.1	\$11,995		\$19,760	\$22,724
104	Frame Building On Slab, S.M	2,311	SI	φ3.30	\$7,705	0.100	231.1	\$11,995		\$19,700	ΨZZ,1Z4
100	Siding, 62'L x 41'W										
106	Operations Building	1,595	SF	\$3.36	\$5,359	0.100	159.5	\$8,279		\$13,638	\$15,684
107	Freezer	190	SF	\$3.36	\$638	0.100	19.0	\$986		\$1,624	\$1,868
108	Soil Remediation	296	CY	\$90.00	\$26,667	0.100	10.0	φοσο		\$26,667	\$30,667
109			•	ψου.σο	Ψ=0,00.					Ψ=0,00.	ψου,συ.
110											
111	Subtotal: SITE PREPARATION, DE	MOLITION	: Cost bas	sed on 62,000	\$137,907		3,773.3	\$195,636	\$71,547	\$405,090	\$464,624
112	Average Unit Price for this division i			,	. ,		•	,	. ,	. ,	* - ,-
113	Average Labor Rate for this division										
114		•									
115	SITE PREPARATION										
116	Clearing & Grubbing										
117	Clear & Grub, Light	4.0	ACRE	\$3,500.00	\$13,886					\$13,886	\$15,969
118											
119	Earthwork, Grading and Drainage										
120	General Earthwork										
121	Site Compaction	130,816				0.009	1,177.3	\$61,107	\$65,408	\$126,515	\$145,492
122	Rough Grading	172,816	SF			0.003	518.4	\$26,907	\$10,369	\$37,276	\$42,867
123											
124	Building Earthwork										
125	Excavation For Bldg (20% Allowed	11,395	CY			0.020	227.9	\$11,829	\$27,347	\$39,176	\$45,053
	For Swell)										
126	Haul Exc To Waste	11,395	CY			0.014	159.5	\$8,279	\$19,534	\$27,813	\$31,985
127	NFS Fill For Bldg (15% Allowed	13,104	CY	\$12.60	\$165,110	0.091	1,192.5	\$61,896	\$49,795	\$276,801	\$318,321
	For Comp.)										
128											
129	Site Earthwork		0 1/		^-			***			
130	NFS Fill - Parking, Roads & Walks	5,808	CY	\$12.60	\$73,181	0.091	528.5	\$27,431	\$22,070	\$122,682	\$141,085
131											
132									*		
133	Subtotal: SITE DEVELOPMENT: Co			SF	\$252,177		3,804.1	\$197,449	\$194,524	\$644,150	\$740,772
134	Average Unit Price for this division i										
135	Average Labor Rate for this division	1: \$51.90 p	er hour								

Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
136											
137	SITE IMPROVEMENTS										
138	Paving and Surfacing	44.500	0)/	645.00	CO47 000					CO47 000	#050 470
139	Roadway Asphalt 2" W/4" Base Paint 4" Lines On Pavement	14,520 120	SY LF	\$15.00	\$217,800					\$217,800	\$250,470
140				\$0.45	\$54	4 000	4.0	#200		\$54	\$62
141	HCP Parking Markings	4	EA	\$15.00	\$60	1.000	4.0	\$208		\$268	\$308
142 143	Cita Immunita										
	Site Improvements	16	EA	\$175.00	¢2.000	1 500	24.0	¢4 046		\$4,046	\$4.650
144 145	New Signage Dumpster Pad - 6"		SF	\$175.00 \$4.95	\$2,800	1.500	24.0	\$1,246 \$612	0150		\$4,653 \$2,045
145	Dumpster Pad - 6	200	SF	ф4.95	\$990	0.059	11.8	Φ012	\$150	\$1,752	\$2,015
146	Bollards										
148	Bollards Bollard Bases	8	EA	\$40.60	\$325	1.500	12.0	\$623	\$280	\$1,228	\$1,412
149	Bollards - 6" Pipe	8	EA	\$122.50	\$980	1.000	8.0	\$623 \$415	φ200	\$1,226 \$1,395	\$1,412 \$1,604
150	Bollards - 6 Pipe	0	EA	\$122.50	\$900	1.000	6.0	Ђ41 Э		\$1,395	φ1,60 4
150	Landasanina	1	LS	\$35,000.00	\$35,000					\$35,000	\$40,250
152	Landscaping	ı	LO	φ35,000.00	φ35,000					φ33,000	\$40,230
153											
154											
155											
156											
157											
158											
159											
160											
161											
162											
163											
164											
165											
166											
167											
168											
169	Subtotal: SITE IMPROVEMENTS:	Cost base	d on 62.00	0 SF	\$258,009		59.8	\$3,104	\$430	\$261,543	\$300,774
170	Average Unit Price for this division			· ·	\$200,000		00.0	ψο, . ο ι	ψ.00	φ <u>υ</u> σ.,σ10	ψουσ,. 1 -
171	Average Labor Rate for this division										
., .	. Trotago Easor Mato for titlo divisio	40 1.0 1 p	J. 11001								

Line				Material (Costs	Labor H	lours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
470											
172	0.75 1.70 17150										
173	SITE UTILITIES										
174	Sewer Piping	600	LF							*	A
175	Trench Excavation W/Hyd. Exc.	1,200	CY	01100	# 40.000	0.053	63.6	\$3,301	\$3,440	\$6,741	\$7,752
176	Backfill In Trenches	1,200	CY	\$14.00	\$16,800	0.053	63.6	\$3,301	\$3,440	\$23,541	\$27,072
177	Pipe Bedding	133	CY	\$19.80	\$2,640	0.050	6.7	\$348	\$433	\$3,421	\$3,935
178	DI Pipe 6" CL50	600	LF	\$10.00	\$6,000	0.200	120.0	\$6,228		\$12,228	\$14,062
179	Connect To Existing	1	EA	\$700.00	\$700	8.000	8.0	\$403	\$65	\$1,168	\$1,168
180	Cleanout	2	EA	\$700.00	\$1,400	8.000	16.0	\$830	\$130	\$2,360	\$2,714
181	Pressure Testing	600	LF			0.030	18.0	\$934		\$934	\$1,074
182											
183	Water Service - Domestic	1,244	LF								
184	Shallow Bury - Arctic Pipe To Avoid Conflicts										
185	Trench Excavation W/Hyd. Exc.	737	CY			0.053	39.1	\$2,029	\$2,113	\$4,142	\$4,764
186	Backfill In Trenches	737	CY	\$14.00	\$10,321	0.053	39.1	\$2,029	\$2,113	\$14,463	\$16,633
187	Pipe Bedding	276	CY	\$19.80	\$5,474	0.050	13.8	\$716	\$898	\$7,088	\$8,152
188	Arctic Pipe, 3" Carrier	307	LF	\$18.00	\$5,526	0.314	96.4	\$5,004	•	\$10,530	\$12,110
189	Arctic Pipe, 2" Carrier	363	LF	\$18.00	\$6,534	0.314	114.0	\$5,917		\$12,451	\$14,319
190	Arctic Pipe, 1.5" Carrier	574	LF	\$18.00	\$10,332	0.314	180.2	\$9,353		\$19,685	\$22,638
191	Pressure Testing	1,244	LF	•	+ -,	0.030	37.3	\$1,936		\$1,936	\$2,226
192		-,						41,000		¥ 1,000	+-, -
193	Gas Main	600	LF	\$35.00	\$21,000					\$21,000	\$24,150
194	Guo mani		_ .	ψου.σο	Ψ= :,σσσ					Ψ=1,000	Ψ= :, : σσ
195	Gas Service Line	100	LF	\$25.00	\$2,500					\$2,500	\$2,875
196				·	. ,					. ,	. ,
197	Electrical Services										
198	Electrical Service	1	LS	\$20,000.00	\$20,000					\$20,000	\$25,000
199	New Feed	600	LF	\$25.00	\$15,000					\$15,000	\$18,750
200		-		V =5100	¥ 12,222					4 ,	* * • • • • • • • • • • • • • • • • • •
201											
202											
203											
204	Subtotal: SITE UTILITIES: Cost ba	sed on 62	000 SE		\$124,227		815.8	\$42,329	\$12,633	\$179,189	\$209,394
205	Average Unit Price for this division				ΨΙΖΤ,ΖΖΙ		010.0	Ψ-2,029	Ψ12,000	ψ173,103	Ψ203,334
206	Average Labor Rate for this division	•									
200	Average Labor Nate for this division	ι. ψυ ι.υθ μ	GI HOUI								

No. Description Qty UNITS Unit Total Units Totals Cost Cost Cost W/ OH &	Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
208 TROUT HATCHERY, BUILDING 1 62,000 SF	No.	Description	Qty	UNITS			Units	Totals	Cost		Cost	w/ OH & P
208 TROUT HATCHERY, BUILDING 1 62,000 SF												
CONCRETE 210 Footings - Perimeter Footing 24"x1 996 LF Footings - Perimeter Footing 24"x1 996 LF Forms 1,660 SF \$0.85 \$1,411 0.100 166.0 \$8,533 \$9,944 \$9,945 \$1,212 Re-steel 6,623 LBS \$0.43 \$2,848 0.027 178.8 \$9,190 \$12,038 \$12,												
Pootings - Perimeter Footing 24"x1 996 LF			62,000	SF								
211 Forms												
212 Re-steel 6,623 LBS \$0.43 \$2,848 0.027 178.8 \$9,190 \$12,038 \$												
Concrete, 3000 PSI, Pumped 65 CY \$100.00 \$6,456 1.286 83.0 \$4,266 \$1,291 \$12,013 \$12,00 Placement					· ·							\$9,944
Placement 214 215					\$0.43	. ,					\$12,038	\$12,038
215 Footings - Interior Footing 36"x12" 414 LF	213		65	CY	\$100.00	\$6,456	1.286	83.0	\$4,266	\$1,291	\$12,013	\$12,013
216 Forms 690 SF \$0.85 \$587 0.100 69.0 \$3,547 \$4,134 \$4,1 217 Re-steel 2,753 LBS \$0.43 \$1,184 0.027 74.3 \$3,819 \$5,003 \$5,0 218 Concrete, 3000 PSI, Pumped 40 CY \$100.00 \$4,025 1.286 51.8 \$2,663 \$805 \$7,493 \$7,4 Placement 219 220 Footings - Columns 5'0"x5'0", Avg. 190 EA 221 Forms 5,711 SF \$1.06 \$6,054 0.125 713.9 \$36,695 \$42,749 \$42,7 222 Re-steel 40,665 LBS \$0.43 \$17,486 0.027 1,097.9 \$56,433 \$73,919 \$73,9 223 Concrete, 3000 PSI, Pumped 278 CY \$100.00 \$27,763 1.286 357.0 \$18,350 \$5,553 \$51,666 \$51,6 Placement 224 225 Foundation Walls 4' 582 LF 226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,8 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,3 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2	214											
217 Re-steel 2,753 LBS \$0.43 \$1,184 0.027 74.3 \$3,819 \$5,003 \$5,002	215	Footings - Interior Footing 36"x12"	414	LF								
218 Concrete, 3000 PSI, Pumped 40 CY \$100.00 \$4,025 1.286 51.8 \$2,663 \$805 \$7,493 \$7,4 Placement 219 220 Footings - Columns 5'0"x5'0", Avg. 190 EA 221 Forms 5,711 SF \$1.06 \$6,054 0.125 713.9 \$36,695 \$42,749 \$42,7 222 Re-steel 40,665 LBS \$0.43 \$17,486 0.027 1,097.9 \$56,433 \$73,919 \$73,9 223 Concrete, 3000 PSI, Pumped 278 CY \$100.00 \$27,763 1.286 357.0 \$18,350 \$5,553 \$51,666 \$51,6 Placement 224 225 Foundation Walls 4' 582 LF 226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,8 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,3 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2	216	Forms	690	SF	\$0.85	\$587	0.100	69.0	\$3,547		\$4,134	\$4,134
Placement 219 220	217	Re-steel	2,753	LBS	\$0.43	\$1,184	0.027	74.3	\$3,819		\$5,003	\$5,003
219	218		40	CY	\$100.00	\$4,025	1.286	51.8	\$2,663	\$805	\$7,493	\$7,493
220 Footings - Columns 5'0"x5'0", Avg. 190 EA 221 Forms 5,711 SF \$1.06 \$6,054 0.125 713.9 \$36,695 \$42,749 \$42,7 222 Re-steel 40,665 LBS \$0.43 \$17,486 0.027 1,097.9 \$56,433 \$73,919 \$73,9 223 Concrete, 3000 PSI, Pumped 278 CY \$100.00 \$27,763 1.286 357.0 \$18,350 \$5,553 \$51,666 \$51,6 Placement Placement Placement \$582 LF \$582 LF \$582 LF \$582 LF \$582 Placement	219											
221 Forms 5,711 SF \$1.06 \$6,054 0.125 713.9 \$36,695 \$42,749 \$42,749 222 Re-steel 40,665 LBS \$0.43 \$17,486 0.027 1,097.9 \$56,433 \$73,919 \$73,9 223 Concrete, 3000 PSI, Pumped 278 CY \$100.00 \$27,763 1.286 357.0 \$18,350 \$5,553 \$51,666 \$51,6 Placement 224 225 Foundation Walls 4' 582 LF 226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,8 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,389 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2		Footings - Columns 5'0"x5'0". Avg.	190	EA								
222 Re-steel 40,665 LBS \$0.43 \$17,486 0.027 1,097.9 \$56,433 \$73,919 \$73,919 223 Concrete, 3000 PSI, Pumped 278 CY \$100.00 \$27,763 1.286 357.0 \$18,350 \$5,553 \$51,666 \$51,666 Placement 224 225 Foundation Walls 4' 582 LF 226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,8 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,389 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2					\$1.06	\$6.054	0.125	713.9	\$36.695		\$42,749	\$42,749
223 Concrete, 3000 PSI, Pumped 278 CY \$100.00 \$27,763 1.286 357.0 \$18,350 \$5,553 \$51,666 \$51,6 Placement 224 225 Foundation Walls 4' 226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,8 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,3 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2		Re-steel			· ·							\$73,919
Placement 224 225					· ·				. ,	\$5,553		\$51,666
225 Foundation Walls 4' 582 LF 226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,8 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,389 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,28												
225 Foundation Walls 4' 582 LF 226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,8 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,389 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,28	224											
226 Forms 4,656 SF \$0.85 \$3,958 0.100 465.6 \$23,932 \$27,890 \$27,890 227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,389 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2		Foundation Walls 4'	582	LF								
227 Re-steel 13,968 LBS \$0.43 \$6,006 0.027 377.1 \$19,383 \$25,389 \$25,3 228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2					\$0.85	\$3,958	0.100	465.6	\$23,932		\$27,890	\$27,890
228 Concrete, 3000 PSI, Pumped 61 CY \$100.00 \$6,066 1.286 78.0 \$4,009 \$1,213 \$11,288 \$11,2					·							\$25,389
										\$1.213		\$11,288
Macement		Placement			•	+ - ,			* ,	· ,	, ,	, ,
229	229											
230 Foundation Walls 8' 414 LF		Foundation Walls 8'	414	LF								
					\$0.85	\$5,630	0.100	662.4	\$34.048		\$39,678	\$39,678
												\$15,217
		Concrete, 3000 PSI, Pumped			·					\$2,576		\$23,968
234	234											
235												
236												
237												

Construction Cost Estimate - Alternative I Conceptual Estimate November 3, 2004

Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
238											
239	Interior Walls 4'H Above Slab	414	LF								
240	Forms	4,140	SF	\$0.85	\$3,519	0.100	414.0	\$21,280		\$24,799	\$24,799
241	Re-steel	4,045	LBS	\$0.43	\$1,739	0.027	109.2	\$5,613		\$7,352	\$7,352
242	Concrete, 3000 PSI, Pumped Placement	54	CY	\$100.00	\$5,394	1.286	69.4	\$3,567	\$1,079	\$10,040	\$10,040
243											
244	Slab On Grade 6"	66,191	SF								
245	Resteel, #4@12"o.c. e.w.	99,022	LBS	\$0.43	\$42,579	0.027	2,673.6	\$137,425		\$180,004	\$180,004
246	Concrete, 3500 PSI, Pumped Placement	1,287	CY	\$100.00	\$128,705	1.575	2,027.1	\$104,194	\$25,741	\$258,640	\$258,640
247	Finish - Subcontract	66,191	SF	\$0.70	\$46,334					\$46,334	\$46,334
248	Control Joints	6,619	LF	\$0.50	\$3,310	0.040	264.8	\$13,611		\$16,921	\$16,921
249	Cure	66,191	SF	\$0.02	\$1,324	0.002	132.4	\$6,805		\$8,129	\$8,129
250											
251	Trench Drain System	100	LF								
252	#3 Epoxy Dowels, 2 Ea @ 18"	135	EA	\$5.00	\$677	0.250	33.8	\$1,737		\$2,414	\$2,414
253	Forms - Cast Against Exc Fill										
254	Concrete	6.11	CY	\$100.00	\$611	3.214	19.6	\$1,007		\$1,618	\$1,618
255	Resteel	348	LBS	\$0.50	\$174	0.029	10.1	\$519		\$693	\$693
256	Polydrain Channel System	100	LF	\$45.00	\$4,500	0.357	35.7	\$1,835		\$6,335	\$6,335
257	W/Integrated Catch Basin and										
258											
259											
260											
261											
262	Subtotal: CONCRETE: Cost base				\$344,820		10,556.1	\$542,590	\$38,258	\$925,668	\$925,668
263	Average Unit Price for this division										
264	Average Labor Rate for this division	on: \$51.40 p	er hour								
265											

MASONRY Not Used

266267

268

269

270

271

Subtotal: MASONRY: Cost based on 62,000 SF Average Unit Price for this division is: \$0.00 per SF

Average Labor Rate for this division: \$0.00 per hour

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
272											
272	METALS										
274	Metal Fabrications										
275	Metal Stairs	4	EA	\$2,500.00	\$10,000	40.000	160.0	\$8,816		\$18,816	\$22,579
276	Misc Metals	66,191	SF	\$0.05	\$3,310	0.001	66.2	\$3,648		\$6,958	\$8,350
277	Handrails	16	LF	\$11.00	\$176	0.114	1.8	\$99		\$275	\$330
278	Guardrails/Handrails	64	LF	\$45.00	\$2,880	0.200	12.8	\$705		\$3,585	\$4,302
279	Guardrails - Safety Rail, Industrial	414	LF	\$16.50	\$6,831	0.114	47.2	\$2,601		\$9,432	\$11,318
280											
281											
282											
283											
284											
285											
286											
287 288											
288 289											
290											
291											
292	Subtotal: METALS: Cost based on	62.000 SI	<u> </u>		\$23,197		288.0	\$15,869		\$39,066	\$46,879
293	Average Unit Price for this division i				* -, -			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		* ,	, 10,010
294	Average Labor Rate for this division	: \$55.10 p	er hour								
295											
296	WOOD AND PLASTIC										
297	Rough Carpentry	1	LS	\$5,000.00	\$5,000					\$5,000	\$5,000
298											
299											
300											
301											
302											
303 304											
304 305	Subtotal: WOOD AND PLASTIC: C	004 booss	on 62 000	ee ee	\$5,000					\$5,000	¢E 000
305	Average Unit Price for this division i			J F	φυ,υυυ					φ5,000	\$5,000
307	Average Labor Rate for this division										
307	Average Labor Mate for this division	ψυ.υυ με	i iioui								

Line				Material C	osts	Labor I		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
308	THE										
309	THERMAL & MOISTURE PROTECTION	N									
310	Dampproofing "	0.004	05	00.40	04.504	0.040	75.7	# 4.004		ΦΕ 050	#0.700
311	Bituminous Dampproofing	3,984	SF	\$0.40	\$1,594	0.019	75.7	\$4,064		\$5,658	\$6,790
312											
313	Waterproofing	0.070	05	# 0.00	# 4.040	0.040	00.0	00.440		#0.050	# 4.000
314	Membrane Waterproofing, Self Adhering	2,070	SF	\$0.60	\$1,242	0.019	39.3	\$2,110		\$3,352	\$4,022
315											
316	Vapor Retarders										
317	Vapor Retarder, 10 Mil (Underslab)	66,191	SF	\$0.12	\$7,943	0.002	132.4	\$6,805		\$14,748	\$14,748
318											
319	Building Insulation										
320	2" Rigid at Foundations	4,980	SF	\$1.00	\$4,980	0.007	34.9	\$1,664		\$6,644	\$7,641
321	Sound Insulation	6,145	SF	\$0.35	\$2,151	0.003	18.4	\$878		\$3,029	\$3,483
322											
323	Flashing & Sheet Metal										
324	Base Flashing	996	LF	\$2.00	\$1,992	0.040	39.8	\$2,137		\$4,129	\$4,955
325	Misc Flashings	498	LF	\$2.00	\$996	0.040	19.9	\$1,068		\$2,064	\$2,477
326											4
327	Joint Sealants	66,191	SF	\$0.04	\$2,648	0.001	66.2	\$3,403		\$6,051	\$6,051
328											
329											
330											
331 332											
333											
334											
335											
336											
337											
338											
339											
340	Subtotal: THERMAL & MOISTURE P	ROTECT	ION: Cost	hased on 62 (\$23,546		426.6	\$22,129		\$45,675	\$50,167
341	Average Unit Price for this division is			Duseu OII UZ,C	Ψ20,040		720.0	ΨΖΖ, ΙΖΘ		Ψ-0,070	ψ50,107
342	Average Labor Rate for this division:	-									
U-72	Avorago Labor Mate for tine division.	ψο ποι ρ	5. 110di								

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
343											
343 344	DOORS AND WINDOWS										
345											
	Steel Doors & Frames HM Insulated 3'0"x7'0"	_	EA	#200.00	#4 500	2.000	45.0	Ф 774		¢o 074	#0.074
346		5	PR	\$300.00	\$1,500 \$4,000	3.000	15.0	\$771		\$2,271 \$2,574	\$2,271
347	HM Insulated 3'0"x7'0" PR	3		\$600.00	\$1,800	5.000	15.0	\$771		\$2,571	\$2,571
348	Insul. HM Frame	8	EA	\$170.00	\$1,360	2.000	16.0	\$822		\$2,182	\$2,182
349	HM Door, 3'0"x7'0"	4	EA	\$300.00	\$1,200	3.000	12.0	\$617		\$1,817	\$1,817
350	HM Door, PR 3'0"x7'0"	8	PR	\$600.00	\$4,800	5.000	40.0	\$2,056		\$6,856	\$6,856
351	HM Frames	12	EA	\$125.00	\$1,500	1.000	12.0	\$617		\$2,117	\$2,117
352	Add For Vision Lites	31	EA	\$85.00	\$2,635					\$2,635	\$2,635
353											
354	Overhead Coiling Doors										
355	Steel, Coiling Door 12x12	1	EA	\$3,600.00	\$3,600	10.000	10.0	\$477		\$4,077	\$4,689
356	Motor Operators	1	EA	\$500.00	\$500					\$500	\$575
357											
358	Sectional Overhead Doors										
359	Insulated Metal Overhead Door, 12'0"x14'0"	5	EA	\$3,360.00	\$16,800	12.000	60.0	\$2,862		\$19,662	\$22,611
360	Motor Operators	5	EA	\$500.00	\$2,500					\$2,500	\$2,875
361		-		4	+ =,===					- ,	- -,
362	Windows										
363	Alum Storefront Windows	1,500	SF	\$38.00	\$57,000	0.143	214.5	\$11,025		\$68,025	\$68,025
364	Adm Glorenone vandows	1,000	O.	ψ00.00	ψ01,000	0.140	214.0	Ψ11,020		ψ00,020	ψ00,020
365	Finish Hardware										
366	Int Hardware Sets	12	EA	\$450.00	\$5,400	1.000	12.0	\$617		\$6,017	\$6,017
367	Ext Hardware Set	8	EA	\$600.00	\$4,800	3.000	24.0	\$1,234		\$6,017	\$6,034
	Ext Haldwale Set	0	EA	φουυ.υυ	Φ4,000	3.000	24.0	Φ1,234		φ 0,034	φ0,03 4
368		4	1.0	#4 500 00	04 500					#4 500	#4.500
369	Glazing	1	LS	\$1,500.00	\$1,500					\$1,500	\$1,500
370											
371											
372											
373											
374											
375	Subtotal: DOORS AND WINDOWS:			00 SF	\$106,895		430.5	\$21,869		\$128,764	\$132,775
376	Average Unit Price for this division	is: \$2.14 p	er SF								
377	Average Labor Rate for this division	n: \$50.80 p	er hour								

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
070											
378											
379	FINISHES										
380	Metal Support Systems			.							
381	Metal Framing 3-5/8" 20 Ga 16" o.c.	3,687	SF	\$0.45	\$1,659	0.019	70.1	\$3,343		\$5,002	\$5,752
382 383	Metal Framing 6" 20 Ga 16" o.c.	8,603	SF	\$0.60	\$5,162	0.020	172.1	\$8,208		\$13,370	\$15,376
384	Gypsum Board										
385	GWB 5/8" Walls	20,300	SF	\$0.30	\$6,090	0.019	385.7	\$18,395		\$24,485	\$28,158
386	Tape & Finish	20,300	SF	\$0.03	\$609	0.010	203.0	\$9,682		\$10,291	\$11,835
387	Suspended GWB Ceilings	1,624		\$1.40	\$2,273	0.057	92.6	\$4,416		\$6,689	\$7,692
388	Caoponaca CVID Comingo	1,021	O.	ψ1.10	Ψ2,2.	0.007	02.0	Ψ1,110		ψ0,000	ψ.,σσ2
389	Resilient Flooring										
390	Sheet Vinyl Flooring	120	SF	\$2.00	\$240	0.029	3.5	\$171		\$411	\$493
391	Check viright looking	120	O.	Ψ2.00	Ψ2 10	0.020	0.0	Ψινι		Ψιιι	φίου
392	Painting										
393	Paint	38,228	SF	\$0.08	\$3,058	0.020	764.6	\$36,466		\$39,524	\$45,453
394	Concrete Sealers	61,880	SF	\$0.20	\$12,376	0.013	804.4	\$38,364		\$50,740	\$58,351
395	Paint Doors & Frames	58	EA	\$5.00	\$290	1.500	87.0	\$4,149		\$4,439	\$5,105
396	Allow For Epoxy Paint System	5,000	SF	\$11.00	\$55,000	1.000	07.0	Ψ1,110		\$55,000	\$55,000
397	Allow For Epoxy Faint Gystem	3,000	O.	ψ11.00	ψ00,000					ψοο,σσσ	ψ00,000
398											
399											
400											
401											
402											
403											
404											
405											
406											
407											
408											
409											
	O LAND FINIOUED O ALL SAND		\ <u></u>		000 757		0.500.0	£400.404		\$000.054	****
410	Subtotal: FINISHES: Cost based of	•			\$86,757		2,583.0	\$123,194		\$209,951	\$233,215
411	Average Unit Price for this division										
412	Average Labor Rate for this division	n: \$47.69 p	er hour								

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
440											
413	SPECIALTIES										
414 415											
416	Toilet Compartments Standard Compartments	4	EA	\$800.00	\$3,200	3.000	12.0	\$617		\$3,817	\$3,817
417	H.C. Compartments	2	EA	\$900.00	\$3,200 \$1,800	3.000	6.0	\$308		\$3,617 \$2,108	\$3,017 \$2,108
418	ri.o. compartments	2	LA	ψ900.00	Ψ1,000	3.000	0.0	ψ300		Ψ2,100	Ψ2,100
419	Impact Resistant Wall Protection										
420	Wall Panels (FRP)	768	SF	\$3.00	\$2,304	0.029	22.3	\$1,146		\$3,450	\$3,450
421	Corner Protectors	12	EA	\$45.00	\$540	0.500	6.0	\$308		\$848	\$848
422	Comor i rotottoro			Ψ 10.00	φοιο	0.000	0.0	φοσο		φοιο	φοιο
423	Directories and Bulletin Boards										
424	Directories	1	EA	\$1,500.00	\$1,500	6.000	6.0	\$286		\$1,786	\$2,054
425				* 1,000110	41,000			¥		4 1,1 2 2	+ -,
426	Exterior Signs	1	LS	\$5,000.00	\$5,000					\$5,000	\$5,750
427				* - /	+ - ,					+ - ,	¥ - ,
428	Interior Architectural Signage										
429	Room Signage	19	EA	\$20.00	\$380	0.250	4.8	\$229		\$609	\$700
430											
431	Fire Protection Specialties										
432	FEC	8	EA	\$175.00	\$1,400	1.000	8.0	\$382		\$1,782	\$2,049
433											
434	Toilet & Bath Accessories										
435	Large Toilet/Locker Room Set	2	EA	\$3,500.00	\$7,000	16.000	32.0	\$1,526		\$8,526	\$9,805
436											
437											
438											
439											
440											
441											
442											
443											
444											
445	0.14.4.1.000011100000000000000000000000				# 00 10 1		67.4	# 4 222		007.000	Acc = -:
446	Subtotal: SPECIALTIES: Cost based				\$23,124		97.1	\$4,802		\$27,926	\$30,581
447	Average Unit Price for this division is										
448	Average Labor Rate for this division:	\$49.45 p	er hour								

Line				Material (costs	Labor H	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
449	501 UD145115										
450	EQUIPMENT										
451 452	Hatchery Estimated Separately Belo	W									
452 453	Loading Dook Equipment										
454	Loading Dock Equipment Dock Bumpers, Rubber 6X12X36	4	EA	\$110.00	\$440	1.000	4.0	\$191		\$631	\$726
455	Dock Leveler	2	EA	\$8,000.00	\$16,000	40.000	80.0	\$3,815		\$19,815	\$22,787
456	Dock Seals	2	EA	\$5,000.00	\$1,080	6.000	12.0	\$5,613 \$572		\$1,652	\$1,900
457	Dock Lights	2	EA	\$200.00	\$400	2.000	4.0	\$191		\$591	\$680
458	Dook Lights	_	L/\	Ψ200.00	Ψ+00	2.000	4.0	ΨΙΟΙ		ΨΟΟΙ	φοσο
459											
460											
461											
462											
463											
464											
465											
466											
467	Subtotal: EQUIPMENT: Cost based	on 62,00	0 SF		\$17,920		100.0	\$4,769		\$22,689	\$26,093
468	Average Unit Price for this division is:										
469	Average Labor Rate for this division:	\$47.69 p	er hour								
470											
471	FURNISHINGS										
472	Floor Mats	32	SF	\$25.00	\$800	0.057	1.8	\$86		\$886	\$1,019
473											
474	Window Treatments	375	SF	\$3.00	\$1,125	0.029	10.9	\$520		\$1,645	\$1,892
475											
476	Furniture and Accessories - Not Incl	uded In	The Estin								
477											
478											
479											
480											
480 481											
480 481 482	Subtotal: FURNISHINGS: Cost base				\$1,925		12.7	\$606		\$2,531	\$2,911
480 481	Subtotal: FURNISHINGS: Cost base Average Unit Price for this division is: Average Labor Rate for this division:	\$0.05 p	er SF		\$1,925		12.7	\$606		\$2,531	\$2,911

Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
485											
486	SPECIAL CONSTRUCTION										
487	Pre Engineered Metal Building	62,000	SF								
488	Pre Engineered Metal Building, Frame	62,000	SF	\$7.60	\$471,200	0.080	4,960.0	\$273,291	\$49,600	\$794,091	\$952,909
489	Metal Insulated Siding Panels 4"	23,053	SF	\$5.50	\$126,793	0.080	1,844.3	\$101,619	\$17,290	\$245,702	\$294,842
490	Metal Insulated Roofing Panels	62,715	SF	\$6.50	\$407,645	0.080	5,017.2	\$276,443	\$47,036	\$731,124	\$877,349
491	General Requirements & Supervision	20	WEEKS	\$750.00	\$14,777	60.000	1,182.2	\$65,138		\$79,915	\$95,898
492	Add For Galv	62,000	SF	\$1.35	\$83,700					\$83,700	\$83,700
493											
494											
495											
496											
497											
498											
499											
500	Subtotal: SPECIAL CONSTRUCTIO	N: Cost b	ased on 62	2,000 SF	\$1,104,115		13,003.7	\$716,491	\$113,926	\$1,934,532	\$2,304,698
501	Average Unit Price for this division i	s: \$37.17	per SF	•							
502	Average Labor Rate for this division	: \$55.10 p	er hour								
503											
504	CONVEYING										
505	Overhead Bridge Crane										
506	5 Ton Crane, 20' Pick, 20' Span	1	EA	\$19,895.00	\$19,895	48.000	48.0	\$2,289		\$22,184	\$25,512
507	Crane Rail - Allow 104 Lb Per Yard	5,547	LBS	\$0.52	\$2,884	0.006	33.3	\$1,588	\$277	\$4,749	\$5,462
508	Box Beam Bridge	3,000	LBS	\$0.98	\$2,940	0.009	27.0	\$1,288	\$240	\$4,468	\$5,138
509	· ·	,		·							
510											
511											
512											
513											
514											
515											
516	Subtotal: CONVEYING: Cost based	on 62 00	0 SF		\$25,719		108.3	\$5,165	\$517	\$31,401	\$36,112
517	Average Unit Price for this division i	•			Ψ20,1.10		100.0	ψο,	ΨΟΙΙ	ΨΟ1,101	ΨΟΟ,: 12
518	Average Labor Rate for this division										
0.0	7.110.ago Labor Mato for tillo division	. ф 17.00 р	o. noui								

Line				Material (Costs	Labor H	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
519											
520	MECHANICAL										
521	15010 General Conditions			^-						4.	*
522	Submittals	40	HRS	\$5.00	\$200	1.000	40.0	\$1,470		\$1,670	\$1,670
523	Shop Drawings	40	HRS	\$10.00	\$400	1.000	40.0	\$1,470		\$1,870	\$1,870
524	Record Drawings	40	HRS	\$5.00	\$200	1.000	40.0	\$1,470		\$1,670	\$1,670
525	Operating Instructions	8	HRS	\$5.00	\$40	1.000	8.0	\$294		\$334	\$334
526	O & M Manuals	24	HRS	\$5.00	\$120	1.000	24.0	\$882		\$1,002	\$1,002
527											
528	Mob & Demob	1	LS	\$3,000.00	\$3,000	96.000	96.0	\$5,073		\$8,073	\$10,091
529	Tests, Inspections	1	LS	\$100.00	\$100	28.571	28.6	\$1,441		\$1,541	\$1,541
530	Supervision	47	WEEKS			20.000	940.0	\$47,000	\$2,938	\$49,938	\$49,938
531	Materials Control	47	WEEKS			20.000	940.0	\$19,740	\$3,231	\$22,971	\$22,971
532	Temporary Connections	1	LS	\$1,000.00	\$1,000	40.000	40.0	\$2,016		\$3,016	\$3,016
533	Bond and Insurance (1%)	1	LS	\$12,900.00	\$12,900					\$12,900	\$12,900
534	Tools and Equipment (1% of	1	LS						\$5,100	\$5,100	\$5,100
	Labor)										
535											
536	15260 Piping Insulation										
537	Fiberglass Pipe Insulation, 1"										
	Thick W/ASJ										
538	Domestic Hot/Cold Water										
539	3/4" Pipe, Fittings	185	LF	\$1.50	\$278	0.070	13.0	\$685		\$963	\$1,252
540	1" Pipe, Fittings	150	LF	\$1.53	\$230	0.073	11.0	\$579		\$809	\$1,052
541	1-1/4" - 1/2" Pipe, Fittings	150	LF	\$1.86	\$279	0.076	11.4	\$600		\$879	\$1,143
542	2" Pipe, Fittings	150	LF	\$2.03	\$305	0.080	12.0	\$632		\$937	\$1,218
543	Hydronic										
544	3/4" Pipe, Fittings	520	LF	\$1.50	\$780	0.070	36.4	\$1,917		\$2,697	\$3,506
545	1" Pipe, Fittings	220	LF	\$1.53	\$337	0.073	16.1	\$848		\$1,185	\$1,541
546	1-1/4" - 1-1/2" Pipe, Fittings	220	LF	\$1.86	\$409	0.076	16.7	\$879		\$1,288	\$1,674
547	2" Pipe, Fittings	220	LF	\$2.03	\$447	0.080	17.6	\$927		\$1,374	\$1,786
548	2-1/2" - 3" Pipe, Fittings	220	LF	\$2.53	\$557	0.089	19.6	\$1,032		\$1,589	\$2,066
549	Sched 40 Blk Steel			•	•			* ,		, ,	, , , , , , , ,
550	4" Pipe, Fittings	220	LF	\$3.26	\$717	0.107	23.5	\$1,237		\$1,954	\$2,540
551	6" Pipe, Fittings	100	LF	\$3.99	\$399	0.133	13.3	\$700		\$1,099	\$1,429
552	, ,									. ,	. , -

No. Description Qty UNITS Unit Total Units Total Cost Cost Cost W OH & P	Line				Material C	Costs	Labor I		Labor	Equip	Total	Total Cost
Finishes: Aluminum Covering, 400 SF \$0.33 \$132 0.080 32.0 \$1,685 \$1,817 \$2,362 \$1.01° \$	No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost		Cost	w/ OH & P
Finishes: Aluminum Covering, 400 SF \$0.33 \$132 0.080 32.0 \$1,685 \$1,817 \$2,362 \$1.01° \$	==0											
.010° Insulated Protectors, ADA, Lav P- 4 EA \$16.80 \$67 0.250 1.0 \$53 \$120 \$156 traps		First All of the Original Control	400	05	# 0.00	# 400	0.000	00.0	#4.005		04.047	ФО ООО
Traps	554		400	SF	\$0.33	\$132	0.080	32.0	\$1,685		\$1,817	\$2,362
15280 Equipment Insulation Glass Fiber, Flexible HX, Air Separators, Exp Tanks: 1- 200 SF	555		4	EA	\$16.80	\$67	0.250	1.0	\$53		\$120	\$156
558 15280 Equipment Insulation Glass Fiber, Flexible Stock S	556	VTR	2	EA	\$20.00	\$40	1.400	2.8	\$147		\$187	\$243
Signature Sign												
Second												
1/2" Thk 561 562 15290 Ductwork Insulation 563 Glass Fiber, Flexible Ductwrap, .75 Lb, FSK 564 1"Thick (Typ For E/A Ducts, 200 SF \$0.32 \$64 0.046 9.2 \$484 \$548 \$712 Round) 565 566 Glass Fiber, Fire Resistant Liner, 1- 1/2 Lb 567 1"Thick (Typ For S/A Ducts, 25,520 SF \$0.46 \$11,739 0.046 1,173.9 \$61,812 \$73,551 \$95,616 Round) 568 569 Glass Fiber, Rigid, W/FRK (Ductboard) 570 2"Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4"Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2.015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577												
15290 Ductwork Insulation Glass Fiber, Flexible Ductwrap, .75 Lb, FSK	560		200	SF	\$0.37	\$74	0.050	10.0	\$527		\$601	\$781
Second	561											
Lb, FSK 1' Thick (Typ For E/A Ducts, 200 SF \$0.32 \$64 0.046 9.2 \$484 \$548 \$712 Round) 565 566 Glass Fiber, Fire Resistant Liner, 1- 1/2 Lb 567 1' Thick (Typ For S/A Ducts, 25,520 SF \$0.46 \$11,739 0.046 1,173.9 \$61,812 \$73,551 \$95,616 Round) 568 569 Glass Fiber, Rigid, W/FRK (Ductboard) 570 2' Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4' Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 576 576 576 576	562	15290 Ductwork Insulation										
Round) 665 666 Glass Fiber, Fire Resistant Liner, 1- 1/2 Lb 567 1" Thick (Typ For S/A Ducts, 25,520 SF \$0.46 \$11,739 0.046 1,173.9 \$61,812 \$73,551 \$95,616 Round) 568 569 Glass Fiber, Rigid, W/FRK (Ductboard) 570 2" Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 576 577	563											
565 566 Glass Fiber, Fire Resistant Liner, 1- 1/2 Lb 567 1" Thick (Typ For S/A Ducts, 25,520 SF \$0.46 \$11,739 0.046 1,173.9 \$61,812 \$73,551 \$95,616 Round) 568 569 Glass Fiber, Rigid, W/FRK (Ductboard) 570 2" Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577	564	, •.	200	SF	\$0.32	\$64	0.046	9.2	\$484		\$548	\$712
Glass Fiber, Fire Resistant Liner, 1- 1/2 Lb 567 1' Thick (Typ For S/A Ducts, 25,520 SF \$0.46 \$11,739 0.046 1,173.9 \$61,812 \$73,551 \$95,616 Round) 568 569 Glass Fiber, Rigid, W/FRK (Ductboard) 570 2' Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 576 576 576	565											
567 1" Thick (Typ For S/A Ducts, 25,520 SF \$0.46 \$11,739 0.046 1,173.9 \$61,812 \$73,551 \$95,616 Round) 568 569 Glass Fiber, Rigid, W/FRK (Ductboard) 570 2" Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577												
568 569 Glass Fiber, Rigid, W/FRK (Ductboard) 570 2" Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577	567	1" Thick (Typ For S/A Ducts,	25,520	SF	\$0.46	\$11,739	0.046	1,173.9	\$61,812		\$73,551	\$95,616
(Ductboard) 570 2" Thick (Typ For O/A Ducts, 200 SF \$2.36 \$472 0.123 24.6 \$1,295 \$1,767 \$2,297 Rect) 571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577	568	,										
2" Thick (Typ For O/A Ducts, Rect) 571	569											
Rect) 571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 576 576 577	570	,	200	SF	\$2.36	\$472	0.123	24.6	\$1,295		\$1,767	\$2,297
571 4" Thick (Typ For Very Cold O/A 200 SF \$3.02 \$604 0.134 26.8 \$1,411 \$2,015 \$2,620 Ducts, Rect) 572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577		, •.			•	•			* ,		+ , -	+ , -
572 573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577	571	4" Thick (Typ For Very Cold O/A	200	SF	\$3.02	\$604	0.134	26.8	\$1,411		\$2,015	\$2,620
573 Finishes: Glass Cloth, Pasted On 400 SF \$2.33 \$932 0.094 37.6 \$1,980 \$2,912 \$3,786 574 575 576 577	572	2 doto, 1 toot,										
574 575 576 577		Finishes: Glass Cloth, Pasted On	400	SF	\$2.33	\$932	0.094	37.6	\$1.980		\$2.912	\$3.786
575 576 577					,	*			* ,		* ,-	+-,
576 577												
577												
579	579											

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
500											
580	45000 F1										
581	15330 Fire Protection Systems	4	^	#0.500.00	#0.500	40.000	40.0	#0.450		#4.050	Φο 400
582	Wet Pipe Sprinkler Riser	1	EA	\$2,500.00	\$2,500	48.000	48.0	\$2,450		\$4,950	\$6,188
583	Dry Pipe Sprinkler Riser	1	EA	\$4,000.00	\$4,000	48.000	48.0	\$2,450		\$6,450	\$8,063
584	Ord. Hazard Wet Pipe Sprinkler System	51,191	SF	\$0.80	\$40,953	0.038	1,945.3	\$99,309		\$140,262	\$175,328
585	Ord. Hazard Dry Pipe Sprinkler	15,000	SF	\$0.88	\$13,200	0.042	630.0	\$32,162		\$45,362	\$56,703
000	System	.0,000	.	ψ0.00	ψ.ο,=σσ	0.0	000.0	40 2, : 6 2		ψ.ο,σσ=	φου,. συ
586	5,2.2										
587	15400 Plumbing Piping										
588	Below Grade DWV, Cast Iron No- Hub										
589	1-1/2" - 2" Pipe & Fittings	125	LF	\$4.71	\$589	0.254	31.8	\$1,623		\$2,212	\$2,765
590	3" Pipe & Fittings	120	LF	\$6.35	\$762	0.267	32.0	\$1,634		\$2,396	\$2,995
591	4" Pipe & Fittings	300	LF	\$7.95	\$2,385	0.291	87.3	\$4,457		\$6,842	\$8,553
592	6" Pipe & Fittings	250	LF	\$13.80	\$3,450	0.329	82.3	\$4,201		\$7,651	\$9,564
593	o i ipo a i italigo	200		ψ10.00	ψο, 100	0.020	02.0	Ψ1,201		Ψ1,001	φο,σσι
594	Above Grade Copper DWV										
595	1-1/2" - 2" Pipe & Fittings	185	LF	\$4.47	\$827	0.182	33.7	\$1,720		\$2,547	\$3,184
596	3" Pipe & Fittings	200	LF	\$7.55	\$1,510	0.276	55.2	\$2,818		\$4,328	\$5,410
597	o i ipo el i ilimige			4	4 1,0 10			- -,		¥ 1,0=0	4-,
598	Rain Leader, Svc Wt Cast Iron										
599	3" Pipe & Fittings	240	LF	\$6.35	\$1,524	0.267	64.1	\$3,272		\$4,796	\$5,995
600	4" Pipe & Fittings	300	LF	\$7.95	\$2,385	0.291	87.3	\$4,457		\$6,842	\$8,553
601	6" Pipe & Fittings	300	LF	\$13.80	\$4,140	0.329	98.7	\$5,039		\$9,179	\$11,474
602				•	. ,			. ,		. ,	. ,
603	Domestic HW/CW Supply, Type L										
	Copper										
604	1/2" Pipe, Fittings	370	LF	\$1.54	\$570	0.099	36.6	\$1,868		\$2,438	\$3,048
605	3/4" Pipe, Fittings	185	LF	\$2.07	\$383	0.105	19.4	\$990		\$1,373	\$1,716
606	1" Pipe, Fittings	150	LF	\$2.70	\$405	0.118	17.7	\$904		\$1,309	\$1,636
607	1-1/4" - 1-1/2" Pipe, Fittings	150	LF	\$4.25	\$638	0.154	23.1	\$1,179		\$1,817	\$2,271
608	2" Pipe, Fittings	150	LF	\$6.35	\$953	0.190	28.5	\$1,455		\$2,408	\$3,010
609	3" Pipe, Fittings	150	LF	\$12.65	\$1,898	0.286	42.9	\$2,190		\$4,088	\$5,110
610				•	. ,					. ,	. ,
611	Sterilization	1	LS	\$25.00	\$25	12.000	12.0	\$613		\$638	\$798

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
612											
613	15440 Plumbing Fixtures and Trim										
614	Wall Hung Water Closet, Infrared	6	EA	\$781.77	\$4,691	8.000	48.0	\$2,450		\$7,141	\$8,926
014	FV	U	LA	Ψ/01.//	Ψ4,091	0.000	40.0	Ψ2,430		Ψ1,141	ψ0,920
615	Wall Hung Lavatory, Infrared	4	EA	\$524.00	\$2,096	8.000	32.0	\$1,634		\$3,730	\$4,663
	Faucet										
616	Wall Hung Urinal, ADA	1	EA	\$355.00	\$355	8.000	8.0	\$408		\$763	\$954
617	Drink Ftn, High-Low Dish Type	4	EA	\$770.00	\$3,080	6.000	24.0	\$1,225		\$4,305	\$5,381
618	Mop Sink, Terrazzo Drop-In Basin	1	EA	\$809.00	\$809	8.000	8.0	\$408		\$1,217	\$1,521
619	Hose Bibb, T-Handle	8	EA	\$25.00	\$200	4.000	32.0	\$1,634		\$1,834	\$2,293
620	Wall Hydrant Freeze-Proof	6	EA	\$195.00	\$1,170	6.000	36.0	\$1,838		\$3,008	\$3,760
621	St. Stl. Sink, Double Bowl	1	EA	\$548.00	\$548	8.000	8.0	\$408		\$956	\$1,195
622	St. Stl. Sink, Single Bowl	4	EA	\$468.00	\$1,872	8.000	32.0	\$1,634		\$3,506	\$4,383
623	Washer Wall Box, Flush Mtd	1	EA	\$45.00	\$45	4.000	4.0	\$204		\$249	\$311
624	Emerg Shower/Eyewash	1	EA	\$556.00	\$556	8.000	8.0	\$408		\$964	\$1,205
625	·										
626	15450 Plumbing Specialties, Equipm	ent									
627	Floor Drains										
628	2", Cast Iron Body, Ni-Bronze	4	EA	\$85.00	\$340	1.600	6.4	\$327		\$667	\$834
	Grate										
629	3", Cast Iron Body, Ni-Bronze	4	EA	\$92.00	\$368	1.600	6.4	\$327		\$695	\$869
	Grate										
630	Floor Sink, 3", Enameled Cl	1	EA	\$126.00	\$126	1.600	1.6	\$82		\$208	\$260
631	Floor Cleanouts	4	EA	\$65.00	\$260	1.330	5.3	\$271		\$531	\$664
632	Vent Thru Roof, 4"	2	EA	\$65.00	\$130	1.000	2.0	\$102		\$232	\$290
633	Domestic Water Pump, Bronze,	1	EA	\$420.00	\$420	4.000	4.0	\$204		\$624	\$780
	Frac HP										
634	Mixing Valve, 25 GPM	1	EA	\$710.00	\$710	0.800	0.8	\$41		\$751	\$939
635	Water Hammer Arresters										
636	PDI Type A	2	EA	\$56.00	\$112	0.800	1.6	\$82		\$194	\$243
637	PDI Type B	2	EA	\$75.00	\$150	0.800	1.6	\$82		\$232	\$290
638	Trap Primer	4	EA	\$100.00	\$400	1.500	6.0	\$306		\$706	\$883
639	Domestic Water Heater	1	EA	\$10,000.00	\$10,000	16.000	16.0	\$817		\$10,817	\$13,521
640											
641											
642											

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
040											
643 644	4F492 Fuel Cae Systems										
645	15483 Fuel Gas Systems Connect To Service, Valves, Pipe,	1	LS	\$1,000.00	\$1,000	8.000	8.0	\$408		\$1,408	\$1,760
	Fittings	'	LO	φ1,000.00	φ1,000	8.000	8.0	φ400		φ1,400	\$1,700
646	Sched 40 Blk Steel										
647	1" Pipe, Fittings		LF	\$2.63	\$132	0.068	3.4	\$174		\$306	\$383
648	2" Pipe, Fittings	50	LF	\$4.72	\$236	0.113	5.7	\$291		\$527	\$659
649											
650	15500 Hydronic Piping & Equipment										
651 652	Pipe & Fittings, Copper Type L Heating System Piping, Copper										
002	Type L										
653	3/4" Pipe, Fittings	520	LF	\$2.07	\$1,076	0.105	54.6	\$2,787		\$3,863	\$4,829
654	1" Pipe, Fittings	220	LF	\$2.70	\$594	0.118	26.0	\$1,327		\$1,921	\$2,401
655	1-1/4" - 1-1/2" Pipe, Fittings	220	LF	\$4.25	\$935	0.154	33.9	\$1,731		\$2,666	\$3,333
656	2" Pipe, Fittings	220	LF	\$6.35	\$1,397	0.190	41.8	\$2,134		\$3,531	\$4,414
657	2-1/2" - 3" Pipe, Fittings	220	LF	\$12.65	\$2,783	0.286	62.9	\$3,211		\$5,994	\$7,493
658	Sched 40 Blk Steel										
659	4" Pipe, Fittings	220	LF	\$13.89	\$3,056	0.200	44.0	\$2,246		\$5,302	\$6,628
660	6" Pipe, Fittings	100	LF	\$24.22	\$2,422	0.348	34.8	\$1,777		\$4,199	\$5,249
661											
662											
663											
664											
665											
666											
667											
668											
669											
670											
671											
672											
673 674											
674 675											
676											
010											

No. Description Qty UNITS Unit Total Units Total Cost Cost Cost W/OH & P	Line				Material (Costs	Labor H	Hours	Labor	Equip	Total	Total Cost
679 Hydronic Specialties Hydronic H	No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost		Cost	w/ OH & P
679 Hydronic Specialties Hydronic H												
679 Áuto Air Vent, High Capacity 1 EA \$575.00 \$575 1.330 1.3 \$66 \$641 \$801 \$1,500 <td></td>												
Section Sect												
681 Expansion Tanks Laphragm Type Expansion 1 EA \$1,353.00 \$1,353 4.000 4.0 \$204 \$1,557 \$1,946 682 Diaphragm Type Expansion 1 EA \$65.00 \$1,353 4.000 4.0 \$204 \$1,557 \$1,946 683 DHW Expansion Tank 1 EA \$65.00 \$260 1.000 1.0 \$51 \$116 \$145 684 Relief Valve, ASME 2 EA \$135.00 \$270 2.000 4.0 \$204 \$474 \$593 685 Pressure Gauges 4 EA \$65.00 \$270 0.500 2.0 \$102 \$362 \$453 687 Promp, Equipment Flex Connector 6 EA \$45.00 \$270 0.500 3.0 \$102 \$362 \$453 687 Promp, Equipment Flex Connector 4 EA \$85.00 \$360 6.00 6.0 \$306 \$1,145 \$1,445 689 Mising Tank			•		· ·		1.330	1.3	\$66			•
Beautiful Controls Beautiful Control Co			1	EA	\$1,200.00	\$1,200					\$1,200	\$1,500
Tank, 100 Gal 883 DHW Expansion Tank		•			•							
Beal	682		1	EA	\$1,353.00	\$1,353	4.000	4.0	\$204		\$1,557	\$1,946
684 Relief Valve, ASME 2 EA \$135.00 \$270 2.000 4.0 \$204 \$474 \$593 685 Pressure Gauges 4 EA \$65.00 \$260 0.500 2.0 \$102 \$362 \$453 686 Thermometers 6 EA \$45.00 \$270 0.500 3.0 \$153 \$423 \$529 687 Pump, Equipment Flex Connector 4 EA \$150.00 \$600 1.000 4.0 \$204 \$804 \$1,005 688 Glycol System 1 EA \$850.00 \$850 6.000 6.0 \$306 \$1,156 \$1,445 699 Propylene Glycol 226 GAL \$8.00 \$1,807 0.213 48.1 \$2,456 \$4,263 \$5,529 691 Valves, Pipin, Feed Reg, 1 LS \$400.00 \$400 4.000 4.0 \$204 \$604 \$604 \$755 693 15540 HVAC Pumps 2 EA		·										
685 Pressure Gauges 4 EA \$65.00 \$260 0.500 2.0 \$102 \$362 \$453 686 Thermometers 6 EA \$45.00 \$270 0.500 3.0 \$153 \$423 \$529 687 Pump, Equipment Flex Connector 4 EA \$150.00 \$600 1.000 4.0 \$204 \$804 \$1,045 688 Glycol System 6 EA \$150.00 \$600 6.0 \$306 \$1,156 \$1,445 690 Propylene Glycol 226 GAL \$8.00 \$1,807 0.213 48.1 \$2,456 \$4,263 \$5,529 691 Valves, Piping, Feed Reg, 1 LS \$400.00 \$400 4.00 \$204 \$604 \$755 692 Controls S \$400.00 \$5,600 8.000 16.0 \$817 \$6,417 \$8,021 692 Main Heating Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.		•	-		·				•			·
686 Thermometers 6 EA \$45.00 \$270 0.500 3.0 \$153 \$423 \$529 687 Pump, Equipment Flex Connector 4 EA \$150.00 \$600 1.000 4.0 \$204 \$804 \$1,005 688 Glycol System 8 Mixing Tank 1 EA \$850.00 \$1850 6.000 6.0 \$306 \$1,156 \$1,445 690 Propylene Glycol 226 GAL \$8.00 \$1,807 0.213 48.1 \$2,456 \$4,263 \$5,329 691 Valves, Piping, Feed Reg, 1 LS \$400.00 \$4.00 4.00 \$2.04 \$604 \$755 692 Controls Language Feed Reg, 1 LS \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 \$8,021 693 Main Heating Circ Pump, 300 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 \$3,766 695<		•			· ·							·
Family Figure Flex Connector Section Flex Connector Section Se		<u> </u>	4		·							·
Glycol System Glycol Syste			6									
689 Mixing Tank 1 EA \$850.00 \$850 6.00 6.0 \$306 \$1,156 \$1,445 690 Propylene Glycol 226 GAL \$8.00 \$1,807 0.213 48.1 \$2,456 \$4,263 \$5,329 691 Valves, Piping, Feed Reg, Controls 1 LS \$400.00 \$4.00 4.00 4.0 \$204 \$604 \$555 692 Controls 802 \$540 HVAC Pumps \$5604 \$8.000 \$16.0 \$817 \$6,417 \$8,021 694 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 \$8.000 \$16.0 \$817 \$6,417 \$8,021 695 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 \$12.0 \$613 \$3,013 \$3,766 696 Cast Iron Boilers 8 Boilers - Cast Iron Oil Fired, 1.6 2 EA \$15,800.00 \$31,600 64.865 \$129.7 \$6,621 \$38,221 \$47,776			4	EA	\$150.00	\$600	1.000	4.0	\$204		\$804	\$1,005
Propylene Glycol 226 GAL \$8.00 \$1,807 0.213 48.1 \$2,456 \$4,263 \$5,329		Glycol System										
691 Valves, Piping, Feed Reg, 1 LS \$400.00 \$400 4.00 4.0 \$204 \$604 \$755 Controls 692 693 694 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 \$8,021 GPM, 2.5 HP 695 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 \$3,766 696 697 Cast Iron Boilers 698 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 1,677 MBH 699 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 Specialties 700 701 Stack and Flue Vents 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 Curb 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564	689	Mixing Tank	1		\$850.00	\$850	6.000	6.0	\$306		\$1,156	\$1,445
Controls 692 693 15540 HVAC Pumps 694 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 \$8,021 GPM, 2.5 HP 695 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 \$3,766 696 697 Cast Iron Boilers 698 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 1,677 MBH 699 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 Specialties 700 701 Stack and Flue Vents 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 Curb 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.00 \$51 \$451 \$564	690	Propylene Glycol	226	GAL	\$8.00	\$1,807	0.213	48.1	\$2,456		\$4,263	\$5,329
692 693	691	Valves, Piping, Feed Reg,	1	LS	\$400.00	\$400	4.000	4.0	\$204		\$604	\$755
693 15540 HVAC Pumps 694 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 \$8,021 695 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 \$3,766 696 Cast Iron Boilers 8 Boilers - Cast Iron Oil Fired, 1,677 MBH 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 699 Boiler Trim, Foundation, 5pecialties 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 700 Stack and Flue Vents 5pecialties 5pecialties <t< td=""><td></td><td>Controls</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Controls										
694 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 \$8,021 695 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 \$3,766 696 Cast Iron Boilers 8 Boilers - Cast Iron Oil Fired, 1,677 MBH 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 699 Boiler Trim, Foundation, 5pecialties 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 700 Stack and Flue Vents 5pecialties 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$600<	692											
694 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 \$8,021 695 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 \$3,766 696 Cast Iron Boilers Boilers - Cast Iron Oil Fired, 1,677 MBH 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 699 Boiler Trim, Foundation, 5pecialties 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 700 Stack and Flue Vents Stack and Flue Vents Stack and Flue Vents Stack 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 </td <td>693</td> <td>15540 HVAC Pumps</td> <td></td>	693	15540 HVAC Pumps										
695 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 \$3,766 696 697 Cast Iron Boilers 8 Boilers - Cast Iron Oil Fired, 1,677 MBH 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 1,677 MBH 8 Boiler Trim, Foundation, 5 Specialties 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 700 Stack and Flue Vents 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, Curb 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 705 Stack Cap, Supports 1 EA \$400.00	694		2	EA	\$2,800.00	\$5,600	8.000	16.0	\$817		\$6,417	\$8,021
696 697												
696 697	695	AHU Circ Pump, 100 GPM, 1.5 HP	2	EA	\$1,200.00	\$2,400	6.000	12.0	\$613		\$3,013	\$3,766
698 Boilers - Cast Iron Oil Fired, 1,677 MBH 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 699 Boiler Trim, Foundation, Specialties 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 700 Stack and Flue Vents 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, Curb 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564	696	.,										
698 Boilers - Cast Iron Oil Fired, 1,677 MBH 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 \$47,776 699 Boiler Trim, Foundation, Specialties 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 700 Stack and Flue Vents 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, Curb 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564	697	Cast Iron Boilers										
1,677 MBH 699 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 \$35,821 Specialties 700 701 Stack and Flue Vents 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 Curb 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564			2	EA	\$15,800.00	\$31,600	64.865	129.7	\$6,621		\$38,221	\$47,776
Specialties 700 701					, -,	, - ,			* - , -		+ /	* ,
Specialties 700 701	699	Boiler Trim. Foundation.	1	LS	\$23,700.00	\$23,700	97.143	97.1	\$4.957		\$28.657	\$35.821
700 701				-	, -,	, -,			* ,		+ -,	· / -
701 Stack and Flue Vents 702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 Curb 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564	700											
702 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097 \$3,871 703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, Curb 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564		Stack and Flue Vents										
703 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306 \$2,883 704 Roof Support Assy, Penetration, 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 Curb 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564			24	l F	\$95.00	\$2 280	0.667	16.0	\$817		\$3 097	\$3 871
704 Roof Support Assy, Penetration, 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697 \$871 Curb 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564					·							
Curb 705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564		•	1									
705 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451 \$564	701				ψοσο.σο	ΨΟΟΟ	1.070	1.0	ΨΟΙ		ΨΟΟΙ	ΨΟΙΙ
	705		1	FΑ	\$400.00	\$400	1 001	1.0	\$51		\$451	\$564
A In	706	Stack Cap, Capports	'	L/ \	ψ-100.00	Ψ-100	1.001	1.0	ΨΟΙ		ψ - -Ο1	ΨΟΟΤ

Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
707											
707	Tambia al Hast Transfer Huita										
708 709	Terminal Heat Transfer Units										
709	(Typ Assy Includes Fittings, AAV, Ctrl Valve,										
710	Isolation Valves, Bal Valve)										
710	Duct Coils	4	EA	\$240.00	\$960	1.500	6.0	\$306		\$1,266	\$1,583
712	Unit Heaters, Util & Fish Rearing	12	EA	\$700.00	\$8,400	4.000	48.0	\$2,450		\$10,850	\$13,563
712	Areas	12	L/\	Ψ700.00	ψ0,400	4.000	40.0	Ψ2,400		φ10,000	Ψ10,000
713	Cabinet Unit Heaters (Entrances)	3	EA	\$893.00	\$2,679	4.000	12.0	\$613		\$3,292	\$4,115
714	(=)	_		***************************************	-			***		+ -,	¥ 1,7 1 2
715	15800 Air Distribution										
716	Component Air Handlers, Incl Mix										
	Box, Coils,										
717	Filter Section, Int. Isolation										
718	AHU-1: 62,000 CFM	1	EA	\$124,000.00	\$124,000	40.000	40.0	\$2,114		\$126,114	\$157,643
719	Exhaust Fans										
720	Toilet Rooms	2	EA	\$200.00	\$400	4.000	8.0	\$423		\$823	\$1,029
721											
722	Vent Fans, Utility Sets										
723	Mech Room Ventilation, Plenum,	1	LS	\$1,200.00	\$1,200	6.000	6.0	\$317		\$1,517	\$1,896
	Dampers										
724											
725	Ductwork										
726	Low Velocity Duct, Incl Allowance										
727	For Waste, Supports and Joints	00.000	1.00	#4.00	#07.400	0.075	4 740 0	#04.050		# 400.070	0404040
728	Round Spiral, Galvanized	23,200	LBS	\$1.60 \$1.00	\$37,120	0.075 0.084	1,740.0	\$91,952 \$42,047		\$129,072	\$161,340
729 730	Rectangular, Galvanized	9,900	LBS	\$1.90	\$18,810	0.084	831.6	\$43,947		\$62,757	\$78,446
730 731	Ductwork Accessories										
731	Fire/Smoke Dampers	2	EA	\$350.00	\$700	2.000	4.0	\$211		\$911	\$1,139
733	Duct Access Doors	2	EA	\$28.00	\$56	0.750	1.5	\$79		\$135	\$169
734	Volume Dampers	80	EA	\$18.00	\$1,440	0.500	40.0	\$2,114		\$3,554	\$4,443
735	Volume Bampere	00		Ψ10.00	Ψ1,110	0.000	10.0	Ψ2,111		φο,σο ι	Ψ1,110
736											
737											
738											

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
739											
739 740	Air Outlets and Inlets: Diffusers,										
740	Grilles Incl Boots,										
741	Mtg Hdwre, Frames, Accessories										
742	S/A Diffusers	130	EA	\$45.00	\$5,850	1.000	130.0	\$6,870		\$12,720	\$15,900
743	R/A, E/A, Transfer Grilles	19	EA	\$28.00	\$532	0.660	12.5	\$661		\$1,193	\$1,491
744	Louvers, Fixed Alum Incl.	220	SF	\$40.00	\$8,800	0.036	7.9	\$417		\$9,217	\$11,521
	Birdscreen										
745											
746	15970 Control Systems										
747	Control Points	45	PTS	\$700.00	\$31,640					\$31,640	\$44,296
748											
749	15990 Balancing & Testing										
750	Balance Hydronic System	1	LS	\$200.00	\$200	5.900	5.9	\$317		\$517	\$724
751	Balance Air Systems	1	LS	\$200.00	\$200	64.500	64.5	\$3,468		\$3,668	\$5,135
752	Commissioning, Startup	1	LS	\$200.00	\$200	120.000	120.0	\$6,453		\$6,653	\$9,314
753 754											
754 755											
755 756											
757											
758											
759											
760											
761											
762											
763											
764											
765											
766											
767											
768											
769	-								*		
770	Subtotal: MECHANICAL: Cost based				\$481,405		11,170.8	\$546,996	\$11,269	\$1,039,670	\$1,285,382
771 772	Average Unit Price for this division is:										
772	Average Labor Rate for this division:	ъ48.97 р	ernour								

Line				Material (Costs	Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
773											
774	ELECTRICAL										
775	16010 Basic Electrical Requirements										
776	Field Engineering: Submittals, Shop & Record										
777	Dwgs, Operating Instructions, O&M Manuals	100	HRS	\$5.00	\$500	1.000	100.0	\$3,675		\$4,175	\$4,175
778	Supervision	30	WEEKS			50.000	1,500.0	\$75,000	\$1,875	\$76,875	\$76,875
779	Materials Control	30	WEEKS			30.000	900.0	\$18,900	\$2,063	\$20,963	\$20,963
780	Bond and Insurance	1	LS	\$10,500.00	\$10,500			4 10,000	+ =,	\$10,500	\$10,500
781	Tools and Equipment	1	LS	* ,	4 1 3 , 3 5 5				\$4,200	\$4,200	\$4,200
782									+ -,	¥ 1,=00	¥ 1,===
783	Service & Distribution Systems										
784	Service Equipment										
785	Transformer	500	KVA	\$27.00	\$13,500	0.120	60.0	\$3,258		\$16,758	\$20,948
786	Pole Top Disconnect 100A 7.2KV	1	EA	\$2,500.00	\$2,500	8.000	8.0	\$434	\$140	\$3,074	\$3,843
787	Ductbank 2"4"C 3#1/0 15kv	500	LF	\$45.11	\$22,555	1.108	554.0	\$30,081		\$52,636	\$65,795
788											
789	Main Distribution Equipment										
790	MDP 600A 280/120V 3Ph 4W	1	EA	\$9,800.00	\$9,800	80.000	80.0	\$4,344		\$14,144	\$17,680
791	MDP 600A 280/120V 3Ph 4W	1	EA	\$10,300.00	\$10,300	70.000	70.0	\$3,801		\$14,101	\$17,626
792	Disconnect Sw 600A 600V	1	EA	\$1,900.00	\$1,900	13.000	13.0	\$706		\$2,606	\$3,258
793											
794	Switches										
795	600A ATS	1	EA	\$8,200.00	\$8,200	16.000	16.0	\$869		\$9,069	\$11,336
796											
797	Panelboards										
798	Panelboards, 120/208V, 3 Phase, 4 Wire, 225A, MLO, 42 Circuit, W/Breakers	6	EA	\$1,155.00	\$6,930	10.000	60.0	\$3,258		\$10,188	\$12,735
799											
800	Transformer										
801	150 KVA Dry Transformer 480/277v-208/120v	1	EA	\$4,200.00	\$4,200	16.000	16.0	\$869		\$5,069	\$6,336
802											
803											

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
004											
804											
805	Feeders & Subfeeds	000		000.04	#44.000	0.070	004.0	#45.004		#07.000	#04.040
806	600 Amp: 2 Sets, 3" RGS, 3#350	300	LF	\$39.64	\$11,892	0.970	291.0	\$15,801		\$27,693	\$34,616
007	KCMIL, 1#3/0	750	LF	040 05	#40 400	0.404	202.0	640 450		COD 040	000 47 5
807	225 Amp: 2-1/2" RGS, 4#250 KCMIL, 1#4	750	LF	\$16.65	\$12,488	0.404	303.0	\$16,452		\$28,940	\$36,175
808	150 Amp: 2" RGS, 3#1/0, 1#6	300	LF	\$7.45	\$2,235	0.263	78.9	\$4,284		\$6,519	\$8,149
809	100 Amp: 1-1/4" RGS, 3#1/0, 1#6	200	LF LF	\$7.45 \$5.63	\$2,235 \$1,126	0.263	76.9 42.8	\$4,264 \$2,324		\$6,519 \$3,450	\$6,149 \$4,313
810	300 Amp: 3" RGS, 3#350 KCMIL,	150	LF	\$18.64	\$2,796	0.468	70.2	\$3,812		\$6,608	\$8,260
010	1#4	130	LI	φ10.04	φ2,190	0.400	70.2	φ3,012		φ0,000	φ0,200
811	1117										
812	Grounding										
813	Ground Bus 12x2x1/4	6	EA	\$35.00	\$210	0.250	1.5	\$81		\$291	\$364
814	1" PVC 1#2 Ground	300	LF	\$1.57	\$471	0.082	24.6	\$1,336		\$1,807	\$2,259
815	1" PVC 1#1/0 Ground	300	LF	\$1.97	\$591	0.088	26.4	\$1,433		\$2,024	\$2,530
816	Ground Rod 3/4" x 10'	4	EA	\$50.00	\$200	1.000	4.0	\$217		\$417	\$521
817	Exothermic Connection	20	EA	\$7.00	\$140	0.250	5.0	\$271		\$411	\$514
818											
819	Power Distribution										
820	Receptacles	100	EA								
821	Duplex 20A 125V	50	EA	\$2.25	\$113	0.150	7.5	\$407		\$520	\$650
822	GFCI Receptacles	25	EA	\$8.45	\$211	0.150	3.8	\$206		\$417	\$521
823	WP GFCI Receptacles	25	EA	\$23.45	\$586	0.250	6.3	\$342		\$928	\$1,160
824	Special Purpose Receptacles	5	EA	\$50.00	\$250	1.000	5.0	\$271		\$521	\$651
825	Add For:										
826	3/4in. EMT	2,000	LF	\$0.48	\$960	0.040	80.0	\$4,344		\$5,304	\$6,630
827	Add For RGC In Wet Areas	600	LF	\$0.35	\$210	0.029	17.4	\$945		\$1,155	\$1,444
828	3/4in. EMT CONN	200	EA	\$0.50	\$100	0.086	17.2	\$934		\$1,034	\$1,293
829	3/4in. EMT CPLG	200	EA	\$1.39	\$278					\$278	\$348
830	3/4in. EMT STRAP 1-H	300	EA	\$0.15	\$45	0.030	9.0	\$489		\$534	\$668
831	#12 THHN	6,600	LF	\$0.09	\$594	0.005	33.0	\$1,792		\$2,386	\$2,983
832	Utility Box 2-1/2 D 1/2 Ko	100	EA	\$1.33	\$133	0.220	22.0	\$1,195		\$1,328	\$1,660
833	1G Ss Receptacle Plate	100	EA	\$2.50	\$250	0.030	3.0	\$163		\$413	\$516
834	1In. X10 S-Tap Screw	500	EA	\$0.02	\$10	0.025	12.5	\$679		\$689	\$861
835											
836											

Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
007											
837											
838	16420 Enclosed Controllers	4.0		#05.00	# 4.040	4 000	400	# 000		# 4 000	A
839	Fractional To 1/4 HP	16	EA . –	\$65.00	\$1,040	1.000	16.0	\$869		\$1,909	\$2,386
840	Wiring: Nom. 3/4" EMT 3#10,	480	LF	\$1.17	\$562	0.094	45.1	\$2,449		\$3,011	\$3,764
841	Starter/Disconnects 0.5 HP	2	EA . –	\$250.00	\$500	3.000	6.0	\$326		\$826	\$1,033
842	Wiring: Nom. 3/4" EMT 3#10,	160	LF	\$1.17	\$187	0.094	15.0	\$814		\$1,001	\$1,251
843	Starter/Disconnects 1 HP	3	EA	\$250.00	\$750	3.000	9.0	\$489		\$1,239	\$1,549
844	Wiring: Nom. 3/4" EMT 3#10,	240	LF	\$1.17	\$281	0.094	22.6	\$1,227		\$1,508	\$1,885
845	Starter/Disconnects 2.5 HP	2	EA	\$250.00	\$500	3.000	6.0	\$326		\$826	\$1,033
846	Wiring: Nom. 3/4" EMT 3#10,	160	LF	\$1.17	\$187	0.094	15.0	\$814		\$1,001	\$1,251
847	Starter/Disconnect, AHU 25 HP	1	EA	\$850.00	\$850	8.000	8.0	\$434		\$1,284	\$1,605
848	1-1/4" RGS, 4#4, 1#8	80	LF	\$4.75	\$380	0.203	16.2	\$880		\$1,260	\$1,575
849	Starter/Disconnect, Fans15 HP	1	EA	\$600.00	\$600	6.000	6.0	\$326		\$926	\$1,158
850	Wiring: 1" RGS, 3#4, 1#8	80	LF	\$1.17	\$94	0.094	7.5	\$407		\$501	\$626
851	Starter/Disconnect 50 HP	2	EA	\$1,225.00	\$2,450	12.000	24.0	\$1,303		\$3,753	\$4,691
852	Wiring: 1-1/4" RGS, 4#2, 1#8	120	LF	\$6.21	\$745	0.217	26.0	\$1,412		\$2,157	\$2,696
853	VFD 100A	2	EA	\$7,700.00	\$15,400	30.000	60.0	\$3,258		\$18,658	\$23,323
854	MCC Structures	2	EA	\$3,500.00	\$7,000	40.000	80.0	\$4,344		\$11,344	\$14,180
855											
856	Interior Lighting										
857	4' Fluor, 2x4 Sfc Lens, 4L	15	EA	\$85.00	\$1,275	1.250	18.8	\$1,021		\$2,296	\$2,870
858	4' HE Fluor, 2x4 Paralouver, 4L	15	EA	\$106.00	\$1,590	1.250	18.8	\$1,021		\$2,611	\$3,264
859	400W Metal Halide	276	EA	\$700.00	\$192,889	3.000	826.7	\$44,888		\$237,777	\$297,221
860	Occupancy Sensors	20	EA	\$90.00	\$1,800	1.250	25.0	\$1,357		\$3,157	\$3,946
861	Exit Sign, LED	12	EA	\$56.00	\$661	2.000	23.6	\$1,281		\$1,942	\$2,428
862	Emerg. Batt Wall Pack	50	EA	\$175.00	\$8,750	3.000	150.0	\$8,145		\$16,895	\$21,119
863	Switches	21	EA	\$17.81	\$372	0.529	11.1	\$603		\$975	\$1,219
864	Wiring: 3/4" Cond, 3-#12, Gnd	6,400	LF	\$0.96	\$6,144	0.080	512.0	\$27,800		\$33,944	\$42,430
865	Lighting Controls	1	LS	\$5,000.00	\$5,000	18.571	18.6	\$1,010		\$6,010	\$7,513
866				,	. ,						
867	Exterior Lighting										
868	Wall Mtd 70 W HPS	8	EA	\$180.00	\$1,440	2.000	16.0	\$869		\$2,309	\$2,886
869	Wall Mtd 150 W HPS	20	EA	\$385.00	\$7,700	2.500	50.0	\$2,715		\$10,415	\$13,019
870	Wiring: 3/4" Cond, 3-#12, Gnd	980	LF	\$0.96	\$941	0.080	78.4	\$4,257		\$5,198	\$6,498
871	Lighting Controls	1	LS	\$500.00	\$500	8.000	8.0	\$434		\$934	\$1,168
872	3 3		-	+ -	*			, , ,		+	+ , 30

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
070											
873 874	Fire Alarm & Detection										
875	Fire Alarm & Detection FACP	1	EA	\$3,750.00	\$3,750	21.429	21.4	¢4 450		\$4,908	\$6,626
	FAA	1	EA	\$3,750.00 \$1,500.00	\$3,750 \$1,500	8.000		\$1,158 \$433			
876 877	Horn/Strobe	•	EA EA	\$1,500.00 \$92.00	\$1,500 \$1,104	1.500	8.0 18.0	\$433 \$974		\$1,933 \$2,078	\$2,610 \$2,805
		12	EA	·							
878	Manual Pull Station	4		\$85.00	\$340	1.000	4.0	\$216		\$556	\$751
879	Heat Detector	6	EA	\$60.00	\$360 \$440	1.000	6.0	\$325		\$685	\$925
880	Smoke Detector, Duct	2	EA	\$220.00	\$440	2.500	5.0	\$271		\$711	\$960
881	Smoke Detector, Ceiling	8	EA	\$85.00	\$680	1.300	10.4	\$563		\$1,243	\$1,678
882	Wiring	1,200	LF	\$0.85	\$1,020	0.071	85.2	\$4,611		\$5,631	\$7,602
883	Design, Approvals, Testing	1	LS	\$2,400.00	\$2,400					\$2,400	\$3,240
884											
885	Computer Outlets										
886	Distribution Frames and Racks	1	LS	\$15,000.00	\$15,000	80.000	80.0	\$4,330		\$19,330	\$24,163
887	Outlets, Incl Cat 5 Wiring, Conduit	100	EA	\$65.00	\$6,500	2.000	200.0	\$10,824		\$17,324	\$21,655
888	Cable Tray	773	LF	\$12.00	\$9,274	0.250	193.2	\$10,456		\$19,730	\$24,663
889	Design, Test System	1	LS	\$7,050.00	\$7,050					\$7,050	\$8,813
890				•							
891	Misc Special Systems	66,191	SF	\$1.00	\$66,191					\$66,191	\$82,739
892											
893											
894											
895											
896											
897											
898											
899											
900											
901											
902											
903											
904											
905											
906	Subtotal: ELECTRICAL: Cost base	d on 62,0	00 SF		\$502,971		7,191.7	\$352,213	\$8,278	\$863,462	\$1,052,173
907	Average Unit Price for this division i										•
908	Average Labor Rate for this division		•								

No. Description Otty UNITS Unit Total Units Total Units Total Units Total Cost Cost Cost W OH & P	Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
SALMON FACILITY (BUILDING 2), & AL 66,191 SF	No.	Description	Qty	UNITS			Units	Totals	Cost			
SALMON FACILITY (BUILDING 2), & AL 66,191 SF												
Political Process Promise Political Process Promise Political Process Promise Political Process Promise Process Promise Prom												
Potings - Perimeter Footing 24"x1 1,104 LF Proms			66,191	SF								
913 Forms												
Re-steel		-			#0.05	04.504	0.400	4040	#0.450		044.000	0.4.4.000
Placement												
Placement Placement Placement Placement Placement Potings - Interior Footing 36"x12" 650 LF 918					·							
917 Footings - Interior Footing 36"x12" 650 LF			72	CY	\$100.00	\$7,156	1.286	92.0	\$4,729	\$1,431	\$13,316	\$13,316
918 Forms 1,083 SF \$0.85 \$9.21 0,100 108.3 \$5,567 \$6,488 \$6,488 919 Re-steel 4,322 LBS \$0.43 \$1,858 0.027 116.7 \$5,998 \$7,856 \$7,856 \$7,856 Placement \$200 Concrete, 3000 PSI, Pumped 42 CY \$100.00 \$4,213 1.286 54.2 \$2,786 \$843 \$7,842 \$7,842 \$7,842 Placement \$210												
919 Re-steel 4,322 LBS \$0.43 \$1,858 0.027 116.7 \$5,998 \$7,856 \$7,856 \$920 Concrete, 3000 PSI, Pumped 42 CY \$100.00 \$4,213 1.286 54.2 \$2,786 \$843 \$7,842 \$7,842 \$7,842 Placement 921	917	Footings - Interior Footing 36"x12"	650									
Second Point Pumped Second Point Pumped Second Point Placement												
Placement Plac	919	Re-steel	4,322		\$0.43	\$1,858	0.027	116.7	\$5,998		\$7,856	\$7,856
Potings - Columns 5'0"x5'0", Avg. 183 EA 923 Forms 5,478 SF \$1.06 \$5,807 0.125 684.8 \$35,199 \$41,006 \$41,006 \$41,006 924 Re-steel 39,003 LBS \$0.43 \$16,771 0.027 1,053.1 \$54,130 \$70,901 \$70,901 925 Concrete, 3000 PSI, Pumped 266 CY \$100.00 \$26,629 1.286 342.5 \$17,605 \$5,326 \$49,560 \$49,560 Placement 927 Foundation Walls 4' 1,104 LF 928 Forms 8,832 SF \$0.85 \$7,507 0.100 883.2 \$45,397 \$52,904 \$52,904 929 Re-steel 26,496 LBS \$0.43 \$11,393 0.027 715.4 \$36,772 \$48,165 \$48,165 930 Concrete, 3000 PSI, Pumped 115 CY \$100.00 \$11,506 1.286 148.0 \$7,607 \$2,301 \$21,414 \$21,414 Placement 931	920		42	CY	\$100.00	\$4,213	1.286	54.2	\$2,786	\$843	\$7,842	\$7,842
923 Forms 5,478 SF \$1.06 \$5,807 0.125 684.8 \$35,199 \$41,006 \$41,006 924 Re-steel 39,003 LBS \$0.43 \$16,771 0.027 1,053.1 \$54,130 \$70,901 \$70,901 925 Concrete, 3000 PSI, Pumped Placement 266 CY \$100.00 \$26,629 1.286 342.5 \$17,605 \$5,326 \$49,560 \$49,560 926 Pornadation Walls 4' 1,104 LF \$9.085 \$7,507 0.100 883.2 \$45,397 \$52,904 \$52,904 928 Forms 8,832 SF \$0.85 \$7,507 0.100 883.2 \$45,397 \$52,904 \$52,904 929 Re-steel 26,496 LBS \$0.43 \$11,393 0.027 715.4 \$36,772 \$48,165 \$48,165 930 Concrete, 3000 PSI, Pumped Placement 115 CY \$100.00 \$11,506 1.286 148.0 \$7,607 \$2,301 \$21,414 \$21,414<	921											
923 Forms 5,478 SF \$1.06 \$5,807 0.125 684.8 \$35,199 \$41,006 \$41,006 924 Re-steel 39,003 LBS \$0.43 \$16,771 0.027 1,053.1 \$54,130 \$70,901 \$70,901 925 Concrete, 3000 PSI, Pumped Placement 266 CY \$100.00 \$26,629 1.286 342.5 \$17,605 \$5,326 \$49,560 \$49,560 926 Placement Forms 8,832 SF \$0.85 \$7,507 0.100 883.2 \$45,397 \$52,904 \$52,904 928 Forms 8,832 SF \$0.85 \$7,507 0.100 883.2 \$45,397 \$52,904 \$52,904 929 Re-steel 26,496 LBS \$0.43 \$11,393 0.027 715.4 \$36,772 \$48,165 \$48,165 930 Concrete, 3000 PSI, Pumped Placement 115 CY \$100.00 \$11,506 1.286 148.0 \$7,607 \$2,301 \$21,414 <	922	Footings - Columns 5'0"x5'0", Avg.	183	EA								
Second Concrete, 3000 PSI, Pumped Placement Second CY Second	923		5,478	SF	\$1.06	\$5,807	0.125	684.8	\$35,199		\$41,006	\$41,006
Placement 926 927	924	Re-steel	39,003	LBS	\$0.43	\$16,771	0.027	1,053.1	\$54,130		\$70,901	\$70,901
927 Foundation Walls 4' 1,104 LF	925	•	266	CY	\$100.00	\$26,629	1.286	342.5	\$17,605	\$5,326	\$49,560	\$49,560
928 Forms 8,832 SF \$0.85 \$7,507 0.100 883.2 \$45,397 \$52,904 \$52,904 929 Re-steel 26,496 LBS \$0.43 \$11,393 0.027 715.4 \$36,772 \$48,165 \$48,165 930 Concrete, 3000 PSI, Pumped Placement 115 CY \$100.00 \$11,506 1.286 148.0 \$7,607 \$2,301 \$21,414 \$21,414 931 Placement \$650 LF \$650	926											
928 Forms 8,832 SF \$0.85 \$7,507 0.100 883.2 \$45,397 \$52,904 \$52,904 929 Re-steel 26,496 LBS \$0.43 \$11,393 0.027 715.4 \$36,772 \$48,165 \$48,165 930 Concrete, 3000 PSI, Pumped Placement 115 CY \$100.00 \$11,506 1.286 148.0 \$7,607 \$2,301 \$21,414 \$21,414 931 Placement \$650 LF \$650	927	Foundation Walls 4'	1.104	LF								
929 Re-steel 26,496 LBS \$0.43 \$11,393 0.027 715.4 \$36,772 \$48,165 \$48,165 930 Concrete, 3000 PSI, Pumped Placement 115 CY \$100.00 \$11,506 1.286 148.0 \$7,607 \$2,301 \$21,414 \$21,414 931 Foundation Walls 8' 650 LF \$7,607 \$2,301 \$21,414 \$21,414 933 Forms 10,400 SF \$0.85 \$8,840 0.100 1,040.0 \$53,457 \$62,297 \$62,297 934 Re-steel 13,144 LBS \$0.43 \$5,652 0.027 354.9 \$18,242 \$23,894 \$23,894 935 Concrete, 3000 PSI, Pumped Placement 202 CY \$100.00 \$20,222 1.286 260.1 \$13,369 \$4,044 \$37,635 \$37,635 936 937 938 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,040 \$1,	928				\$0.85	\$7,507	0.100	883.2	\$45,397		\$52,904	\$52,904
Placement 931 932		Re-steel			\$0.43		0.027	715.4			\$48,165	
932 Foundation Walls 8' 650 LF 933 Forms 10,400 SF \$0.85 \$8,840 0.100 1,040.0 \$53,457 \$62,297 \$62,297 934 Re-steel 13,144 LBS \$0.43 \$5,652 0.027 354.9 \$18,242 \$23,894 \$23,894 935 Concrete, 3000 PSI, Pumped 202 CY \$100.00 \$20,222 1.286 260.1 \$13,369 \$4,044 \$37,635 \$37,635 Placement 936 937 938		•			\$100.00			148.0		\$2,301		
932 Foundation Walls 8' 650 LF 933 Forms 10,400 SF \$0.85 \$8,840 0.100 1,040.0 \$53,457 \$62,297 \$62,297 934 Re-steel 13,144 LBS \$0.43 \$5,652 0.027 354.9 \$18,242 \$23,894 \$23,894 935 Concrete, 3000 PSI, Pumped 202 CY \$100.00 \$20,222 1.286 260.1 \$13,369 \$4,044 \$37,635 \$37,635 Placement 936 937 938	931											
933 Forms 10,400 SF \$0.85 \$8,840 0.100 1,040.0 \$53,457 \$62,297 \$62,297 934 Re-steel 13,144 LBS \$0.43 \$5,652 0.027 354.9 \$18,242 \$23,894 \$23,894 935 Concrete, 3000 PSI, Pumped 202 CY \$100.00 \$20,222 1.286 260.1 \$13,369 \$4,044 \$37,635 \$37,635 Placement 936 937 938		Foundation Walls 8'	650	LF								
934 Re-steel 13,144 LBS \$0.43 \$5,652 0.027 354.9 \$18,242 \$23,894 \$23,894 935 Concrete, 3000 PSI, Pumped 202 CY \$100.00 \$20,222 1.286 260.1 \$13,369 \$4,044 \$37,635 \$37,635 Placement 936 937 938					\$0.85	\$8.840	0.100	1.040.0	\$53,457		\$62,297	\$62,297
935 Concrete, 3000 PSI, Pumped 202 CY \$100.00 \$20,222 1.286 260.1 \$13,369 \$4,044 \$37,635 \$37,635 Placement 936 937 938												
936 937 938		Concrete, 3000 PSI, Pumped								\$4,044		
937 938	936											
938												
JUJU	939											

Construction Cost Estimate - Alternative I
Conceptual Estimate
November 3, 2004

Line				Material	Costs	Labor	Hours	Labor	Equip		Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
940											
941	Interior Walls 4'H Above Slab	650	LF								
942	Forms	6,500	SF	\$0.85	\$5,525	0.100	650.0	\$33,410		\$38,935	\$38,935
943	Re-steel	6,351	LBS	\$0.43	\$2,731	0.027	171.5	\$8,815		\$11,546	\$11,546
944	Concrete, 3000 PSI, Pumped Placement	85	CY	\$100.00	\$8,468	1.286	108.9	\$5,598	\$1,694	\$15,760	\$15,760
945											
946	Slab On Grade 6"	66,191	SF								
947	Resteel, #4@12"o.c. e.w.	99,022	LBS	\$0.43	\$42,579	0.027	2,673.6	\$137,425		\$180,004	\$180,004
948	Concrete, 3500 PSI, Pumped Placement	1,287	CY	\$100.00	\$128,705	1.575	2,027.1	\$104,194	\$25,741	\$258,640	\$258,640
949	Finish - Subcontract	66,191	SF	\$0.70	\$46,334					\$46,334	\$46,334
950	Control Joints	6,619	LF	\$0.50	\$3,310	0.040	264.8	\$13,611		\$16,921	\$16,921
951 952	Cure	66,191	SF	\$0.02	\$1,324	0.002	132.4	\$6,805		\$8,129	\$8,129
953	Trench Drain System	100	LF								
954 955	#3 Epoxy Dowels, 2 Ea @ 18" Forms - Cast Against Exc Fill	135	EA	\$5.00	\$677	0.250	33.8	\$1,737		\$2,414	\$2,414
956	Concrete	6.11	CY	\$100.00	\$611	3.214	19.6	\$1,007		\$1,618	\$1,618
957	Resteel	348	LBS	\$0.50	\$174	0.029	10.1	\$519		\$693	\$693
958 959 960	Polydrain Channel System W/Integrated Catch Basin and	100	LF	\$45.00	\$4,500	0.357	35.7	\$1,835		\$6,335	\$6,335
961											
962											
963											
964	Subtotal: CONCRETE: Cost base	d on 62,000) SF		\$378,133		12,362.9	\$635,460	\$41,380	\$1,054,973	\$1,054,973
965	Average Unit Price for this division	•			•		•	•	•		
966	Average Labor Rate for this division										
967											

MASONRY Not Used

969

970

971 972

973

Subtotal: MASONRY: Cost based on 62,000 SF
Average Unit Price for this division is: \$0.00 per SF

Average Labor Rate for this division: \$0.00 per hour

Line				Material (Costs	Labor H		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
974											
974 975	METALS										
975 976	Metal Fabrications										
977	Metal Stairs	3	EA	\$2,500.00	\$7,500	40.000	120.0	\$6,612		\$14,112	\$16,934
978	Misc Metals	66,191	SF	\$0.05	\$3,310	0.001	66.2	\$3,648		\$6,958	\$8,350
979	Guardrails/Handrails	48	LF	\$45.00	\$2,160	0.200	9.6	\$529		\$2,689	\$3,227
980	Guardrails - Safety Rail, Industrial	650	LF	\$16.50	\$10,725	0.114	74.1	\$4,083		\$14,808	\$17,770
981	Guarana Garaty Man, madaman	000		ψ.ο.σσ	ψ.ο,. 20	0		ψ 1,000		ψ1.1,000	Ψ11,110
982											
983											
984											
985											
986											
987											
988											
989											
990											
991											
992											
993	Γ										
994	Subtotal: METALS: Cost based on				\$23,695		269.9	\$14,872		\$38,567	\$46,281
995	Average Unit Price for this division is										
996 997	Average Labor Rate for this division	: \$55.10 p	er nour								
998	WOOD AND PLASTIC										
999	Rough Carpentry	1	LS	\$5,000.00	\$5,000					\$5,000	\$5,000
1,000	nough ourpointy	·		ψο,σσσ.σσ	ψο,σσσ					ψο,σσσ	φο,σσσ
1,001											
1,002											
1,003											
1,004											
1,005											
1,006											
1,007	Subtotal: WOOD AND PLASTIC: Co			SF	\$5,000					\$5,000	\$5,000
1,008	Average Unit Price for this division is										
1,009	Average Labor Rate for this division	: \$0.00 pe	r hour								

Line				Material (Labor I		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,010											
1,010	THERMAL & MOISTURE PROTECTION	M									
1,011	Dampproofing	1									
1,012	Bituminous Dampproofing	4,416	SE	\$0.40	\$1,766	0.019	83.9	\$4,504		\$6,270	\$7,524
1,014	Ditallinous Dampprooning	4,410	Oi	ψ0.40	Ψ1,700	0.013	00.0	φ+,50+		ψ0,270	Ψ1,02-
1,015	Waterproofing										
1,016	Membrane Waterproofing, Self Adhering	3,250	SF	\$0.60	\$1,950	0.019	61.8	\$3,318		\$5,268	\$6,322
1,017	3										
1,018	Vapor Retarders										
1,019	Vapor Retarder, 10 Mil (Underslab)	66,191	SF	\$0.12	\$7,943	0.002	132.4	\$6,805		\$14,748	\$14,748
1,020	,										
1,021	Building Insulation										
1,022	2" Rigid at Foundations	5,520	SF	\$1.00	\$5,520	0.007	38.6	\$1,841		\$7,361	\$8,465
1,023	Sound Insulation	12,832	SF	\$0.35	\$4,491	0.003	38.5	\$1,836		\$6,327	\$7,276
1,024											
1,025	Flashing & Sheet Metal										
1,026	Base Flashing	1,104		\$2.00	\$2,208	0.040	44.2	\$2,373		\$4,581	\$5,497
1,027	Misc Flashings	552	LF	\$2.00	\$1,104	0.040	22.1	\$1,186		\$2,290	\$2,748
1,028											
1,029	Joint Sealants	66,191	SF	\$0.04	\$2,648	0.001	66.2	\$3,403		\$6,051	\$6,051
1,030											
1,031											
1,032											
1,033											
1,034 1,035											
1,035											
1,030											
1,037											
1,039											
1,040											
1,041											
1,042	Subtotal: THERMAL & MOISTURE P	ROTECT	ION: Cost I	based on 62.0	\$27,630		487.7	\$25,266		\$52,896	\$58,631
1,043	Average Unit Price for this division is				+ , 555			+-3,-03		÷==,000	+30,001
1,044	Average Labor Rate for this division:	•									

Line				Material	Costs	Labor H	lours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4.045											
1,045											
1,046	DOORS AND WINDOWS										
1,047	Steel Doors & Frames			# 000 00	# 4 000	0.000	40.0	0047		# 4 047	04.047
1,048	HM Insulated 3'0"x7'0"	4	EA	\$300.00	\$1,200	3.000	12.0	\$617		\$1,817	\$1,817
1,049	HM Insulated 3'0"x7'0" PR	4	PR	\$600.00	\$2,400	5.000	20.0	\$1,028		\$3,428	\$3,428
1,050	Insul. HM Frame	8	EA	\$170.00	\$1,360	2.000	16.0	\$822		\$2,182	\$2,182
1,051	HM Door, 3'0"x7'0"	4	EA	\$280.00	\$1,120	3.000	12.0	\$617		\$1,737	\$1,737
1,052	HM Door, PR 3'0"x7'0"	8	PR	\$500.00	\$4,000	5.000	40.0	\$2,056		\$6,056	\$6,056
1,053	HM Frames	12	EA	\$125.00	\$1,500	1.000	12.0	\$617		\$2,117	\$2,117
1,054	Add For 20 Min FR	10	EA	\$10.00	\$100					\$100	\$100
1,055	Add For 45 Min FR	10	EA	\$100.00	\$1,000					\$1,000	\$1,000
1,056	Add For Vision Lites	32	EA	\$85.00	\$2,720					\$2,720	\$2,720
1,057											
1,058	Wood Doors										
1,059	Solid Core Wood Flush Door 3x7	36	EA	\$300.00	\$10,800	2.000	72.0	\$3,701		\$14,501	\$14,501
1,060											
1,061	Overhead Coiling Doors										
1,062	Steel, Coiling Door 12x12	1	EA	\$3,600.00	\$3,600	10.000	10.0	\$477		\$4,077	\$4,689
1,063	Motor Operators	1	EA	\$500.00	\$500					\$500	\$500
1,064											
1,065	Sectional Overhead Doors										
1,066	Insulated Metal Overhead Door,	5	EA	\$3,360.00	\$16,800	12.000	60.0	\$2,862		\$19,662	\$22,611
	12'0"x14'0"										
1,067	Motor Operators	5	EA	\$500.00	\$2,500					\$2,500	\$2,875
1,068	·										
1,069	Windows										
1,070	Alum Storefront Windows	1,660	SF	\$38.00	\$63,080	0.143	237.4	\$12,203		\$75,283	\$75,283
1,071											
1,072	Finish Hardware										
1,073	Int Hardware Sets	48	EA	\$450.00	\$21,600	1.000	48.0	\$2,467		\$24,067	\$24,067
1,074	Ext Hardware Set	8	EA	\$600.00	\$4,800	3.000	24.0	\$1,234		\$6,034	\$6,034
1,075	Glazing	1	LS	\$1,500.00	\$1,500			· , -		\$1,500	\$1,500
1,076	g			¥ 1,000100	41,000					¥ 1,222	V 1,000
1,077	Subtotal: DOORS AND WINDOWS:	Cost bas	ed on 62 no	00 SF	\$140,580		563.4	\$28,701		\$169,281	\$173,217
1,078	Average Unit Price for this division i	·					550	4 _5,. 5 !		ψ.00, 2 01	Ų O,Z
1,079	Average Labor Rate for this division										
1,010	7.17 C. ago Eabor Trato for tillo division	. фоо.о т р	o. noui								

Line				Material (Labor I		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
,080,											
,081	FINISHES										
,082	09100 - Metal Support Systems										
,083	Metal Framing 3-5/8" 20 Ga 16" o.c.	7,699	SF	\$0.45	\$3,465	0.019	146.3	\$6,978		\$10,443	\$12,009
,084 ,085	Metal Framing 6" 20 Ga 16" o.c.	17,965	SF	\$0.60	\$10,779	0.020	359.3	\$17,136		\$27,915	\$32,102
,086	09250 - Gypsum Board										
,087	GWB 5/8" Walls	50,433	SF	\$0.30	\$15,130	0.019	958.2	\$45,700		\$60,830	\$69,955
,087	Tape & Finish	50,433	SF	\$0.03	\$1,513	0.019	504.3	\$24,052		\$25,565	\$29,400
,089	Suspended GWB Ceilings	1,440	SF	\$1.40	\$2,016	0.010	82.1	\$3,916		\$5,932	\$6,822
,090		1,440	Si	Ψ1.40	Ψ2,010	0.037	02.1	ψ5,910		ψ5,932	ψ0,022
,091	Acoustical Ceilings										
,092 ,093	Acoustical Suspended Ceilings	3,681	SF	\$2.00	\$7,362	0.023	84.7	\$4,433		\$11,795	\$12,975
,094	Resilient Flooring										
,095	Sheet Vinyl Flooring	64	SF	\$2.00	\$128	0.029	1.9	\$93		\$221	\$265
,096	Resilient Base	1,538	LF	\$0.65	\$1,000	0.019	29.2	\$1,426		\$2,426	\$2,911
,097 ,098	Cornet										
	Carpet	4,071	C.E.	ድ ጋ ፫ር	C44040	0.004	05.5	¢4.475		#40.404	#00.400
,099 ,100	Carpet, Comml Glue Down	4,071	SF	\$3.50	\$14,249	0.021	85.5	\$4,175		\$18,424	\$22,109
,101	Resilient Flooring										
,102	Sheet Vinyl Flooring	120	SF	\$2.00	\$240	0.029	3.5	\$183		\$423	\$465
,103	, ,				•			·		·	·
,104	09900 - Painting										
,105	Paint	46,873	SF	\$0.08	\$3,750	0.020	937.5	\$44,712		\$48,462	\$55,731
,106	Concrete Sealers	62,000	SF	\$0.20	\$12,400	0.013	806.0	\$38,441		\$50,841	\$58,467
,107	Paint Doors & Frames	56	EA	\$5.00	\$280	1.500	84.0	\$4,006		\$4,286	\$4,929
108	Allow For Epoxy Paint System	5,000	SF	\$11.00	\$55,000					\$55,000	\$55,000
109											
110											
,111 ,112	Subtotal: FINISHES: Cost based of	on 62 000 S	`F		\$127,312		4,082.5	\$195,251		\$322,563	\$363,140
,113	Average Unit Price for this division	is: \$5.86 p	er SF		Ψ121,012		1,002.0	φ100,201		ψ022,000	ψοσο, 140
1,114	Average Labor Rate for this division										

Line				Material (Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,115											
1,116	SPECIALTIES										
1,117	Toilet Compartments										
1,118	Standard Compartments	4	EA	\$800.00	\$3,200	3.000	12.0	\$572		\$3,772	\$4,338
1,119	H.C. Compartments	2	EA	\$900.00	\$3,200 \$1,800	3.000	6.0	\$286		\$3,772 \$2,086	\$2,399
1,113	11.0. Compartments	2	LA	ψ900.00	ψ1,000	3.000	0.0	Ψ200		Ψ2,000	Ψ2,399
1,121	Impact Resistant Wall Protection										
1,122	Wall Panels (FRP)	768	SF	\$3.00	\$2,304	0.029	22.3	\$1,124		\$3,428	\$3,428
1,123	Corner Protectors	12	EA	\$45.00	\$540	0.500	6.0	\$286		\$826	\$950
1,123	Comer i fotectors	12	LA	Ψ45.00	Ψ540	0.500	0.0	Ψ200		ψ020	ψ930
1,125	Directories and Bulletin Boards										
1,126	Directories and Bulletin Boards Directories	1	EA	\$1,500.00	\$1,500	6.000	6.0	\$286		\$1,786	\$2,054
1,127	Directories	'	LA	ψ1,500.00	Ψ1,500	0.000	0.0	Ψ200		Ψ1,700	Ψ2,004
1,128	Exterior Signs	1	LS	\$5,000.00	\$5,000					\$5,000	\$5,750
1,129	Exterior Signs	'	LO	ψ5,000.00	Ψ5,000					ψ5,000	ψ5,750
1,130	Interior Architectural Signage										
1,131	Room Signage	49	EA	\$20.00	\$982	0.250	12.3	\$587		\$1,569	\$1,804
1,132	100m eighage	40	L/\	Ψ20.00	ΨΟΟΣ	0.200	12.0	φοσι		Ψ1,000	Ψ1,004
1,133	Fire Protection Specialties										
1,134	FEC	8	EA	\$175.00	\$1,400	1.000	8.0	\$382		\$1,782	\$2,049
1,135	120	· ·	L / \	Ψ170.00	Ψ1,100	1.000	0.0	Ψ002		Ψ1,702	Ψ2,010
1,136	Toilet & Bath Accessories										
1,137	Large Toilet/Locker Room Set	4	EA	\$3,500.00	\$14,000	16.000	64.0	\$3,052		\$17,052	\$19,610
1,138	Small Toilet Room Sets	3	EA	\$500.00	\$1,500	4.000	12.0	\$572		\$2,072	\$2,383
1,139	Ginaii Foilet Room Gold	· ·	_, ,	Ψοσοίσο	Ψ.,σσσ			Ψ0. =		4 _, 0	42,000
1,140											
1,141											
1,142											
1,143											
1,144											
1,145											
1,146											
1,147											
1,148	Subtotal: SPECIALTIES: Cost based	d on 62.0	00 SF		\$32,226		148.6	\$7,147		\$39,373	\$44,765
1,149	Average Unit Price for this division is				. ,			. ,		,-	,,- 50
1,150	Average Labor Rate for this division:										
,	g	÷									

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,151	FOLUDATAIT										
1,152 1,153	EQUIPMENT	_									
1,153	Hatchery Estimated Separately Belov	,									
1,154	Loading Dock Equipment										
1,156	Dock Bumpers, Rubber 6X12X36	4	EA	\$110.00	\$440	1.000	4.0	\$191		\$631	\$726
1,157	Dock Leveler	2	EA	\$8,000.00	\$16,000	40.000	80.0	\$3,815		\$19,815	\$22,787
1,158	Dock Seals	2	EA	\$540.00	\$1,080	6.000	12.0	\$572		\$1,652	\$1,900
1,159	Dock Lights	2		\$200.00	\$400	2.000	4.0	\$191		\$591	\$680
1,160	Dook Lights	_		Ψ200.00	Ψ100	2.000	1.0	φισι		φοσι	φοσσ
1,161											
1,162											
1,163											
1,164											
1,165											
1,166											
1,167	Subtotal: EQUIPMENT: Cost based of	n 62,00	00 SF		\$17,920		100.0	\$4,769		\$22,689	\$26,093
1,168	Average Unit Price for this division is:				,						. ,
1,169	Average Labor Rate for this division:	647.69 p	oer hour								
1,170											
1,171	FURNISHINGS										
1,172	Floor Mats	32	SF	\$25.00	\$800	0.057	1.8	\$86		\$886	\$1,019
1,173											
1,174	Window Treatments	1,660	SF	\$3.00	\$4,980	0.029	48.1	\$2,294		\$7,274	\$8,365
1,175											
1,176	Furniture and Accessories - Not Inclu	ıded In	The Estin								
1,177											
1,178											
1,179											
1,180											
1,181											
1,182											
1,183											
1,184	Subtotal: FURNISHINGS: Cost based				\$5,780		49.9	\$2,380		\$8,160	\$9,384
	Subtotal: FURNISHINGS: Cost based Average Unit Price for this division is: Average Labor Rate for this division: \$	\$0.15 p	er SF		\$5,780		49.9	\$2,380		\$8,160	\$9,384

			Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost	
o.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
407											
187 188	CDECIAL CONCEDUCTION										
89	SPECIAL CONSTRUCTION	66 404	SF								
	Pre Engineered Metal Building Pre Engineered Metal Building,	66,191 66,191	SF	\$7.60	\$503,052	0.080	5,295.3	\$291,766	\$52,953	\$847,771	\$1,017,325
90	Frame										
91	Metal Insulated Siding Panels 4"	23,272	SF	\$5.50	\$127,998	0.080	1,861.8	\$102,583	\$17,454	\$248,035	\$297,642
92	Metal Insulated Roofing Panels	66,974	SF	\$6.50	\$435,333	0.080	5,357.9	\$295,215	\$50,231	\$780,779	\$936,935
93	General Requirements & Supervision	21	WEEKS	\$750.00	\$15,644	60.000	1,251.5	\$68,956		\$84,600	\$101,520
94	Add For Galv	66,191	SF	\$1.35	\$89,358					\$89,358	\$89,358
95											
96											
97											
98											
99											
00											
)1											
)2											
)3											
)3)4)5	Subtotal: SPECIAL CONSTRUCTION			2,000 SF	\$1,171,385		13,766.5	\$758,520	\$120,638	\$2,050,543	\$2,442,780
03 04 05	Subtotal: SPECIAL CONSTRUCTION Average Unit Price for this division is			2,000 SF	\$1,171,385		13,766.5	\$758,520	\$120,638	\$2,050,543	\$2,442,780
03 04 05 06		s: \$39.40	per SF	2,000 SF	\$1,171,385		13,766.5	\$758,520	\$120,638	\$2,050,543	\$2,442,780
03 04 05 06 07	Average Unit Price for this division is Average Labor Rate for this division:	s: \$39.40	per SF	2,000 SF	\$1,171,385		13,766.5	\$758,520	\$120,638	\$2,050,543	\$2,442,780
03 04 05 06 07 08	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING	s: \$39.40	per SF	2,000 SF	\$1,171,385		13,766.5	\$758,520	\$120,638	\$2,050,543	\$2,442,780
03 04 05 06 07 08 09	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane	s: \$39.40 : \$55.10 p	per SF er hour	2,000 SF	\$1,171,385		13,766.5	\$758,520	\$120,638	\$2,050,543	
03 04 05 06 07 08 09 10	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span	s: \$39.40 : \$55.10 p	per SF er hour EA	\$19,895.00	\$19,895	48.000	48.0	\$2,289		\$22,184	\$25,512
03 04 05 06 07 08 09 10	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane	s: \$39.40 : \$55.10 p	per SF er hour EA			48.000 0.006	·		\$120,638 \$277		\$25,512
03 04 05 06 07 08 09 10 11 12	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span	s: \$39.40 : \$55.10 p	per SF eer hour EA LBS	\$19,895.00	\$19,895		48.0	\$2,289		\$22,184	\$25,512 \$5,462
03 04 05 06 07 08 09 10 11 12	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span Crane Rail - Allow 104 Lb Per Yard	s: \$39.40 : \$55.10 p	per SF eer hour EA LBS	\$19,895.00 \$0.52	\$19,895 \$2,884	0.006	48.0 33.3	\$2,289 \$1,588	\$277	\$22,184 \$4,749	\$25,512 \$5,462
03 04 05 06 07 08 09 10 11 12 13	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span Crane Rail - Allow 104 Lb Per Yard	s: \$39.40 : \$55.10 p	per SF eer hour EA LBS	\$19,895.00 \$0.52	\$19,895 \$2,884	0.006	48.0 33.3	\$2,289 \$1,588	\$277	\$22,184 \$4,749	\$25,512 \$5,462
03 04 05 06 07 08 09 10 11 12 13 14	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span Crane Rail - Allow 104 Lb Per Yard	s: \$39.40 : \$55.10 p	per SF eer hour EA LBS	\$19,895.00 \$0.52	\$19,895 \$2,884	0.006	48.0 33.3	\$2,289 \$1,588	\$277	\$22,184 \$4,749	\$25,512 \$5,462
03 04 05 06 07 08 09 10 11 12 13 14	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span Crane Rail - Allow 104 Lb Per Yard	s: \$39.40 : \$55.10 p	per SF eer hour EA LBS	\$19,895.00 \$0.52	\$19,895 \$2,884	0.006	48.0 33.3	\$2,289 \$1,588	\$277	\$22,184 \$4,749	\$25,512 \$5,462
02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span Crane Rail - Allow 104 Lb Per Yard	s: \$39.40 \$55.10 p	per SF er hour EA LBS LBS	\$19,895.00 \$0.52	\$19,895 \$2,884	0.006	48.0 33.3	\$2,289 \$1,588	\$277	\$22,184 \$4,749	\$25,512 \$5,462 \$5,138
03 04 05 06 07 08 09 10 11 12 13 14 15 16	Average Unit Price for this division is Average Labor Rate for this division: CONVEYING Overhead Bridge Crane 5 Ton Crane, 20' Pick, 20' Span Crane Rail - Allow 104 Lb Per Yard Box Beam Bridge	s: \$39.40 \$55.10 p	EA LBS LBS	\$19,895.00 \$0.52	\$19,895 \$2,884 \$2,940	0.006	48.0 33.3 27.0	\$2,289 \$1,588 \$1,288	\$277 \$240	\$22,184 \$4,749 \$4,468	\$2,442,780 \$25,512 \$5,462 \$5,138

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,221											
1,222	MECHANICAL										
1,223	15010 General Conditions			^-						4.	A
1,224	Submittals	40	HRS	\$5.00	\$200	1.000	40.0	\$1,470		\$1,670	\$1,670
1,225	Shop Drawings	40	HRS	\$10.00	\$400	1.000	40.0	\$1,470		\$1,870	\$1,870
1,226	Record Drawings	40	HRS	\$5.00	\$200	1.000	40.0	\$1,470		\$1,670	\$1,670
1,227	Operating Instructions	8	HRS	\$5.00	\$40	1.000	8.0	\$294		\$334	\$334
1,228	O & M Manuals	24	HRS	\$5.00	\$120	1.000	24.0	\$882		\$1,002	\$1,002
1,229											
1,230	Mob & Demob	1	LS	\$3,000.00	\$3,000	96.000	96.0	\$4,838		\$7,838	\$7,838
1,231	Tests, Inspections	1	LS	\$100.00	\$100	28.571	28.6	\$1,441		\$1,541	\$1,541
1,232	Supervision	43	WEEKS			20.000	860.0	\$43,000	\$2,688	\$45,688	\$45,688
1,233	Materials Control	43	WEEKS			20.000	860.0	\$18,060	\$2,956	\$21,016	\$21,016
1,234	Temporary Connections	1	LS	\$1,000.00	\$1,000	40.000	40.0	\$2,016		\$3,016	\$3,016
1,235	Bond and Insurance (1%)	1	LS	\$12,200.00	\$12,200					\$12,200	\$12,200
1,236	Tools and Equipment (1% of	1	LS						\$4,900	\$4,900	\$4,900
	Labor)										
1,237											
1,238	15260 Piping Insulation										
1,239	Fiberglass Pipe Insulation, 1"										
	Thick W/ASJ										
1,240	Domestic Hot/Cold Water										
1,241	3/4" Pipe, Fittings	185	LF	\$1.50	\$278	0.070	13.0	\$685		\$963	\$1,252
1,242	1" Pipe, Fittings	150	LF	\$1.53	\$230	0.073	11.0	\$579		\$809	\$1,052
1,243	1-1/4" - 1/2" Pipe, Fittings	150	LF	\$1.86	\$279	0.076	11.4	\$600		\$879	\$1,143
1,244	2" Pipe, Fittings	150	LF	\$2.03	\$305	0.080	12.0	\$632		\$937	\$1,218
1,245	Hydronic			•	•			•		*	+ / -
1,246	3/4" Pipe, Fittings	550	LF	\$1.50	\$825	0.070	38.5	\$2,027		\$2,852	\$3,708
1,247	1" Pipe, Fittings	240	LF	\$1.53	\$367	0.073	17.5	\$921		\$1,288	\$1,674
1,248	1-1/4" - 1-1/2" Pipe, Fittings	240	LF	\$1.86	\$446	0.076	18.2	\$958		\$1,404	\$1,825
1,249	2" Pipe, Fittings	240	LF	\$2.03	\$487	0.080	19.2	\$1,011		\$1,498	\$1,947
1,250	2-1/2" - 3" Pipe, Fittings	240	LF	\$2.53	\$607	0.089	21.4	\$1,127		\$1,734	\$2,254
1,251	Sched 40 Blk Steel	2-10		Ψ2.00	φοσι	0.003	∠ 1 1	Ψ1,121		ψ1,70-	Ψ2,207
1,251	4" Pipe, Fittings	240	LF	\$3.26	\$782	0.107	25.7	\$1,353		\$2,135	\$2,776
1,252	6" Pipe, Fittings	100	LF	\$3.99	\$399	0.133	13.3	\$700		\$1,099	\$1,429
1,254	o ripe, rittings	100	LI	ψυ.σσ	ψυσσ	0.100	10.0	Ψ100		Ψ1,033	Ψ1,429
1,204											

				Material (JOSTS	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1 055											
1,255 1,256	Finishes: Aluminum Covering,	400	SF	\$0.33	\$132	0.080	32.0	\$1,685		\$1,817	\$2,362
.,_00	.010"		.	φοισσ	Ψ.0=	0.000	02.0	ψ.,σσσ		Ψ.,σ	4 2,002
1,257	Insulated Protectors, ADA, Lav P-traps	4	EA	\$16.80	\$67	0.250	1.0	\$53		\$120	\$156
1,258	VTR	2	EA	\$20.00	\$40	1.400	2.8	\$147		\$187	\$243
1,259											
1,260	15280 Equipment Insulation										
1,261	Glass Fiber, Flexible			.							
1,262	HX, Air Separators, Exp Tanks: 1-1/2" Thk	200	SF	\$0.37	\$74	0.050	10.0	\$527		\$601	\$781
1,263											
1,264	15290 Ductwork Insulation										
1,265	Glass Fiber, Flexible Ductwrap, .75 Lb, FSK										
1,266	1" Thick (Typ For E/A Ducts, Round)	200	SF	\$0.32	\$64	0.046	9.2	\$484		\$548	\$712
1,267											
1,268	Glass Fiber, Fire Resistant Liner, 1-1/2 Lb										
1,269	1" Thick (Typ For S/A Ducts, Round)	23,870	SF	\$0.46	\$10,980	0.046	1,098.0	\$57,816		\$68,796	\$89,435
1,270	,										
1,271	Glass Fiber, Rigid, W/FRK (Ductboard)										
1,272	2" Thick (Typ For O/A Ducts,	200	SF	\$2.36	\$472	0.123	24.6	\$1,295		\$1,767	\$2,297
	Rect)										
1,273	4" Thick (Typ For Very Cold O/A Ducts, Rect)	200	SF	\$3.02	\$604	0.134	26.8	\$1,411		\$2,015	\$2,620
1,274	,										
1,275	Finishes: Glass Cloth, Pasted On	400	SF	\$2.33	\$932	0.094	37.6	\$1,980		\$2,912	\$3,786
1,276											
1,277											
1,278											
1,279											
1,280											

1,281 1,282 15330 Fire Protection Systems 1,283 Wet Pipe Sprinkler Riser 1 EA \$2,500.00 \$2,500 48.000 48.0 \$2,450 \$4,950 1.284 Dry Pipe Sprinkler Riser 1 EA \$4,000.00 \$4,000 48.0 \$2,450 \$6,450 1.284 Dry Pipe Sprinkler Riser 4 1 EA \$4,000.00 \$4,000 48.0 \$2,450 \$6,450 1.284 Dry Pipe Sprinkler 47,000 SF \$0.80 \$37,600 0.038 1,786.0 \$91,177 \$128,777 \$11 \$128,777 \$11 \$2,850 Mr. Albert System 1,286 Ord. Hazard Dry Pipe Sprinkler 15,000 SF \$0.88 \$13,200 0.042 630.0 \$32,162 \$45,362 \$3 \$3,128	Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
1,282 15330 Fire Protection Systems 1,283 Wet Pipe Sprinkler Riser 1 EA \$2,500.00 \$2,500 48.000 48.0 \$2,450 \$4,950 \$6,450 \$1,284 Dry Pipe Sprinkler Riser 1 EA \$4,000.00 \$4,000 48.00 48.0 \$2,450 \$6,450 \$1,285 Crd. Hazard Wet Pipe Sprinkler 47,000 SF \$0.80 \$37,600 0.038 1,786.0 \$91,177 \$128,777 \$11 \$128,777 \$11 \$1,286 Crd. Hazard Dry Pipe Sprinkler 15,000 SF \$0.88 \$13,200 0.042 630.0 \$32,162 \$45,362 \$1,287	No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,282 15330 Fire Protection Systems 1,283 Wet Pipe Sprinkler Riser 1 EA \$2,500.00 \$2,500 48.000 48.0 \$2,450 \$4,950 \$6,450 \$1,284 Dry Pipe Sprinkler Riser 1 EA \$4,000.00 \$4,000 48.00 48.0 \$2,450 \$6,450 \$1,285 Crd. Hazard Wet Pipe Sprinkler 47,000 SF \$0.80 \$37,600 0.038 1,786.0 \$91,177 \$128,777 \$11 \$128,777 \$11 \$128 Crd. Hazard Dry Pipe Sprinkler 15,000 SF \$0.88 \$13,200 0.042 630.0 \$32,162 \$45,362 \$1,287 \$1												
1,283 Wet Pipe Sprinkler Riser 1 EA \$2,500.00 \$2,500 48.000 48.0 \$2,450 \$4,950 1.284 Dry Pipe Sprinkler Riser 1 EA \$4,000.00 \$4,000 48.00 48.0 \$2,450 \$6,450 1.285 Ord. Hazard Wet Pipe Sprinkler 47,000 SF \$0.80 \$37,600 0.038 1,786.0 \$91,177 \$128,777 \$112,737 \$128,777 \$112,86 Ord. Hazard Dry Pipe Sprinkler 15,000 SF \$0.88 \$13,200 0.042 630.0 \$32,162 \$45,362 \$128,777 \$112,886 Ord. Hazard Dry Pipe Sprinkler 15,000 SF \$0.88 \$13,200 0.042 630.0 \$32,162 \$45,362 \$12,887 \$12,289 \$15400 Plumbing Piping Below Grade DWV, Cast Iron No-Hub Hub 1-1/2" - 2" Pipe & Fittings 125 LF \$4.71 \$589 0.254 31.8 \$1,623 \$2,212 1.291 3" Pipe & Fittings 120 LF \$6.35 \$762 0.267 32.0 \$1,634 \$2,396 1.292 4" Pipe & Fittings 300 LF \$7.95 \$2,385 0.291 87.3 \$4,457 \$6,842 1.293 6" Pipe & Fittings 250 LF \$13.80 \$3,450 0.329 82.3 \$4,201 \$7,651 1.294 Above Grade Copper DWV 1.295 1-1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 1.295 1-1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 1.297 Domestic HW/CW Supply, Type L Copper L Cop												
1,284 Dry Pipe Sprinkler Riser 1 EA \$4,000.00 \$4,000 48.00 48.0 \$2,450 \$6,450 1.285 Ord. Hazard Wet Pipe Sprinkler 47,000 SF \$0.80 \$37,600 0.038 1,786.0 \$91,177 \$128,777 \$11 \$228,777 \$11 \$286 Ord. Hazard Dry Pipe Sprinkler 15,000 SF \$0.88 \$13,200 0.042 630.0 \$32,162 \$45,362 \$12,877 \$12,877 \$12,877 \$12,877 \$12,877 \$12,879 \$12,879 \$12,900 \$1.1/2" - 2" Pipe & Fittings 120 LF \$6.35 \$762 0.267 32.0 \$1,634 \$2,396 \$1,293 \$1,293 \$6" Pipe & Fittings 250 LF \$13,80 \$3,450 0.329 \$2.3 \$4,201 \$7,651 \$1,294 \$4,000 \$1.1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 \$1,294 \$4,000 \$1.1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 \$1,295 \$1.1/2" - 2" Pipe & Fittings 200 LF \$7.55 \$1,510 0.276 \$55.2 \$2,818 \$4,328 \$1,299 \$3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 \$1,300 \$1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,300 \$1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,300 \$2" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 \$3" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,305 \$1,305 \$1,305 \$1,305 \$1,305 \$1,305 \$1,305 \$1,305 \$1,405 \$1					40.500.00	40.500	40.000	40.0	00.450		0.1.050	00.400
1,285			•									\$6,188
1,286			-									\$8,063
1,286 Ord. Hazard Dry Pipe Sprinkler 15,000 SF \$0.88 \$13,200 0.042 630.0 \$32,162 \$45,362 \$3,128	1,285	• •	47,000	SF	\$0.80	\$37,600	0.038	1,786.0	\$91,177		\$128,777	\$160,971
1,287 1,288 1,289 1,289 1,289 1,290 1,290 1,290 1,290 1,290 1,291 1,291 1,291 1,291 1,291 1,292 1,291 1,292 1,291 1,292 1,291 1,292 1,293 1,292 1,293 1,293 1,293 1,294 1,294 1,295 1,295 1,297 1,298 1,298 1,299 1,298 1,298 1,299 1,298 1,298 1,299 1,298 1,298 1,299 1,298	4 000		45.000	0.5	A	# 40.000	0.040	202.2	# 00 400		0.45 000	#50.700
1,287 1,288 1,289 Below Grade DWV, Cast Iron No-Hub 1,290 1-1/2" - 2" Pipe & Fittings 120 1,291 1,291 3" Pipe & Fittings 120 1,292 4" Pipe & Fittings 250 1,294 Above Grade Copper DWV 1,295 1,1/2" - 2" Pipe & Fittings 185 185 185 185 185 185 185 185 185 185	1,286	• • •	15,000	SF	\$0.88	\$13,200	0.042	630.0	\$32,162		\$45,362	\$56,703
1,288 15400 Plumbing Piping Below Grade DWV, Cast Iron No-Hub 1,290 1-1/2" - 2" Pipe & Fittings 125 LF \$4.71 \$589 0.254 31.8 \$1,623 \$2,212 \$1,291 3" Pipe & Fittings 120 LF \$6.35 \$762 0.267 32.0 \$1,634 \$2,396 \$1,292 4" Pipe & Fittings 300 LF \$7.95 \$2,385 0.291 87.3 \$4,457 \$6,842 \$1,293 6" Pipe & Fittings 250 LF \$13.80 \$3,450 0.329 82.3 \$4,201 \$7,651 \$1,294 Above Grade Copper DWV 1,295 1-1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 \$1,296 3" Pipe & Fittings 200 LF \$7.55 \$1,510 0.276 55.2 \$2,818 \$4,328 \$1,297 \$2,547 \$1,296 3" Pipe & Fittings 370 LF \$1.54 \$570 0.099 36.6 \$1,868 \$2,438 \$1,299 3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 \$1,300 1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,301 1-1/4" - 1-1/2" Pipe, Fittings 150 LF \$4.25 \$638 0.154 23.1 \$1,179 \$1,817 \$1,302 2" Pipe, Fittings 150 LF \$4.25 \$638 0.154 23.1 \$1,179 \$1,817 \$1,303 \$1,304 \$1,906 \$1,307 \$1,005	4.007	System										
Below Grade DWV, Cast Iron No-Hub Hub		45400 DI II DI I										
Hub 1,290												
1,290	1,289											
1,291 3" Pipe & Fittings 120 LF \$6.35 \$762 0.267 32.0 \$1,634 \$2,396 1,292 4" Pipe & Fittings 300 LF \$7.95 \$2,385 0.291 87.3 \$4,457 \$6,842 1,293 6" Pipe & Fittings 250 LF \$13.80 \$3,450 0.329 82.3 \$4,201 \$7,651 1,294 Above Grade Copper DWV	1 200		105	1.5	¢4.74	¢ E00	0.054	24.0	\$4.622		የ ጋ ጋ4ጋ	¢o 765
1,292 4" Pipe & Fittings 300 LF \$7.95 \$2,385 0.291 87.3 \$4,457 \$6,842 \$1,293 6" Pipe & Fittings 250 LF \$13.80 \$3,450 0.329 82.3 \$4,201 \$7,651 \$1,294 Above Grade Copper DWV 1,295 1-1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 \$1,296 3" Pipe & Fittings 200 LF \$7.55 \$1,510 0.276 55.2 \$2,818 \$4,328 \$1,297 Domestic HW/CW Supply, Type L Copper CUPLED COPPER C												\$2,765
1,293 6" Pipe & Fittings 250 LF \$13.80 \$3,450 0.329 82.3 \$4,201 \$7,651 \$1,294 Above Grade Copper DWV 1,295 1-1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 \$1,296 3" Pipe & Fittings 200 LF \$7.55 \$1,510 0.276 55.2 \$2,818 \$4,328 \$1,297 Domestic HW/CW Supply, Type L Copper 1,298 1/2" Pipe, Fittings 370 LF \$1.54 \$570 0.099 36.6 \$1,868 \$2,438 \$1,299 3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 \$1,300 1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,301 1-1/4" - 1-1/2" Pipe, Fittings 150 LF \$4.25 \$638 0.154 23.1 \$1,179 \$1,817 \$1,302 2" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 3" Pipe, Fittings 150 LF \$12.65 \$1,898 0.286 42.9 \$2,190 \$4,088 \$1,304 Sterilization 1 LS \$25.00 \$25 12.000 12.0 \$613 \$638 \$1.305						•						\$2,995 \$0,553
1,294 Above Grade Copper DWV 1,295 1-1/2" - 2" Pipe & Fittings 185 LF \$4.47 \$827 0.182 33.7 \$1,720 \$2,547 \$1,296 3" Pipe & Fittings 200 LF \$7.55 \$1,510 0.276 55.2 \$2,818 \$4,328 \$1,297 Domestic HW/CW Supply, Type L Copper 1,298 1/2" Pipe, Fittings 370 LF \$1.54 \$570 0.099 36.6 \$1,868 \$2,438 \$1,299 3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 \$1,300 1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,301 1-1/4" - 1-1/2" Pipe, Fittings 150 LF \$4.25 \$638 0.154 23.1 \$1,179 \$1,817 \$1,302 2" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 3" Pipe, Fittings 150 LF \$12.65 \$1,898 0.286 42.9 \$2,190 \$4,088 \$1,304 Sterilization 1 LS \$25.00 \$25 12.000 12.0 \$613 \$638 \$1,305					·							\$8,553 \$0,564
1,295			250	LF	φ13.60	\$3,450	0.329	02.3	ֆ4,∠01		۱ ده, ۱ټ	\$9,564
1,296 3" Pipe & Fittings 200 LF \$7.55 \$1,510 0.276 55.2 \$2,818 \$4,328 \$1,297 Domestic HW/CW Supply, Type L Copper 1,298 1/2" Pipe, Fittings 370 LF \$1.54 \$570 0.099 36.6 \$1,868 \$2,438 \$1,299 3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 1,300 1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 1,301 1-1/4" - 1-1/2" Pipe, Fittings 150 LF \$4.25 \$638 0.154 23.1 \$1,179 \$1,817 1,302 2" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 1,303 3" Pipe, Fittings 150 LF \$12.65 \$1,898 0.286 42.9 \$2,190 \$4,088 1,304 Sterilization 1 LS \$25.00 \$25 12.000 12.0 \$613 \$638 1,305		• •	105		¢4.47	0007	0.400	22.7	¢4 700		CO E 47	\$3,184
1,297 Domestic HW/CW Supply, Type L Copper 1,298 1/2" Pipe, Fittings 370 LF \$1.54 \$570 0.099 36.6 \$1,868 \$2,438 \$1,299 3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 \$1,300 1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,301 1-1/4" - 1-1/2" Pipe, Fittings 150 LF \$4.25 \$638 0.154 23.1 \$1,179 \$1,817 \$1,302 2" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$1,303 3" Pipe, Fittings 150 LF \$12.65 \$1,898 0.286 42.9 \$2,190 \$4,088 \$1,304 Sterilization 1 LS \$25.00 \$25 12.000 12.0 \$613 \$638 \$1,305		·										\$5,104 \$5,410
Copper 1,298			200	LF	φ <i>1</i> .55	φ1,510	0.276	55.2	Φ∠,010		Φ4,320	φ5, 4 10
1,298 1/2" Pipe, Fittings 370 LF \$1.54 \$570 0.099 36.6 \$1,868 \$2,438 \$1,299 3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 \$1,373 \$1,300 \$1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,409 <t< td=""><td>1,297</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	1,297											
1,299 3/4" Pipe, Fittings 185 LF \$2.07 \$383 0.105 19.4 \$990 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,373 \$1,309 \$1,309 \$1,309 \$1,309 \$1,309 \$1,309 \$1,309 \$1,309 \$1,309 \$1,309 \$1,301 \$1,479 \$1,4179 \$1,817 \$1,302 \$2" Pipe, Fittings \$150 LF \$6.35 \$953 \$0.190 \$28.5 \$1,455 \$2,408 \$2,408 \$3,408 \$3,408 \$3,408 \$3,408 \$3,408 \$3,408 \$3,408 \$4,088 \$3,408 \$4,088 \$3,408 \$4,088	1 200	• •	270	15	¢1	¢ 570	0.000	26.6	¢1 060		ድን ላ ንዕ	\$3,048
1,300 1" Pipe, Fittings 150 LF \$2.70 \$405 0.118 17.7 \$904 \$1,309 \$1,309 \$1,301 \$1,401												\$3,0 4 6 \$1,716
1,301 1-1/4" - 1-1/2" Pipe, Fittings 150 LF \$4.25 \$638 0.154 23.1 \$1,179 \$1,817 \$1,302 \$1,302 2" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$2,408 \$3,408 \$3,408 \$3,408 \$3,408 \$3,408 \$4,088 \$3,408 \$4,088 \$3,408 \$4,088					·	· · · · · · · · · · · · · · · · · · ·						\$1,716
1,302 2" Pipe, Fittings 150 LF \$6.35 \$953 0.190 28.5 \$1,455 \$2,408 \$3,408 \$3,408 \$3,408 \$3,408 \$3,408 \$4,088 \$3,408 \$4,088 \$3,408 \$4,088 <td></td> <td>\$1,030</td>												\$1,030
1,303 3" Pipe, Fittings 150 LF \$12.65 \$1,898 0.286 42.9 \$2,190 \$4,088 \$1,304 1,304 Sterilization 1 LS \$25.00 \$25 12.000 12.0 \$613 \$638 1,305												\$3,010
1,304 Sterilization 1 LS \$25.00 \$25 12.000 12.0 \$613 \$638 1,305												\$5,010 \$5,110
1,305					·							\$798
		Sterinzation	1	LO	Ψ25.00	Ψ23	12.000	12.0	ψ013		ψυσο	Ψ1 90
	1,306											
1,307												
1,308												
1,309												
1,310												
1,311												
1,312												

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4.040											
1,313	45440 BL 1111 BL 4 111 1 1 1 1										
1,314	15440 Plumbing Fixtures and Trim	^	_^	6704 77	# 4.004	0.000	40.0	ው ር 450		ф т 4 4 4	60.000
1,315	Wall Hung Water Closet, Infrared FV	6	EA	\$781.77	\$4,691	8.000	48.0	\$2,450		\$7,141	\$8,926
1,316	Wall Hung Lavatory, Infrared Faucet	4	EA	\$524.00	\$2,096	8.000	32.0	\$1,634		\$3,730	\$4,663
1,317	Wall Hung Urinal, ADA	1	EA	\$355.00	\$355	8.000	8.0	\$408		\$763	\$954
1,318	Drink Ftn, High-Low Dish Type	4	EA	\$770.00	\$3,080	6.000	24.0	\$1,225		\$4,305	\$5,381
1,319	Mop Sink, Terrazzo Drop-In Basin	1	EA	\$809.00	\$809	8.000	8.0	\$408		\$1,217	\$1,521
1,320	Hose Bibb, T-Handle	8	EA	\$25.00	\$200	4.000	32.0	\$1,634		\$1,834	\$2,293
1,321	Wall Hydrant Freeze-Proof	6	EA	\$195.00	\$1,170	6.000	36.0	\$1,838		\$3,008	\$3,760
1,322	St. Stl. Sink, Double Bowl	1	EA	\$548.00	\$548	8.000	8.0	\$408		\$956	\$1,195
1,323	St. Stl. Sink, Single Bowl	4	EA	\$468.00	\$1,872	8.000	32.0	\$1,634		\$3,506	\$4,383
1,324	Washer Wall Box, Flush Mtd	1	EA	\$45.00	\$45	4.000	4.0	\$204		\$249	\$311
1,325	Emerg Shower/Eyewash	1	EA	\$556.00	\$556	8.000	8.0	\$408		\$964	\$1,205
1,326	Emorg Griewen/Lyewaen		_, .	φοσοίσο	φοσο	0.000	0.0	ψ.00		Ψ00.	Ψ1,200
1,327	15450 Plumbing Specialties, Equipm	nent									
1,328	Floor Drains										
1,329	2", Cast Iron Body, Ni-Bronze	4	EA	\$85.00	\$340	1.600	6.4	\$327		\$667	\$834
.,0_0	Grate	·		Ψ00.00	Ψ0.0		0	Ψ0=.		Ψ00.	Ψ00.
1,330	3", Cast Iron Body, Ni-Bronze	4	EA	\$92.00	\$368	1.600	6.4	\$327		\$695	\$869
1,000	Grate	•	_, .	Ψ02.00	φοσο	1.000	0	Ψ02.		φοσο	φοσο
1,331	Floor Sink, 3", Enameled CI	1	EA	\$126.00	\$126	1.600	1.6	\$82		\$208	\$260
1,332	Floor Cleanouts	4	EA	\$65.00	\$260	1.330	5.3	\$271		\$531	\$664
1,333	Vent Thru Roof, 4"	2	EA	\$65.00	\$130	1.000	2.0	\$102		\$232	\$290
1,334	Domestic Water Pump, Bronze,	1	EA	\$420.00	\$420	4.000	4.0	\$204		\$624	\$780
1,001	Frac HP		L/\	ψ 120.00	Ψ120	1.000	1.0	ΨΖΟΊ		ΨΟΖΙ	Ψίου
1,335	Mixing Valve, 25 GPM	1	EA	\$710.00	\$710	0.800	0.8	\$41		\$751	\$939
1,336	Water Hammer Arresters										
1,337	PDI Type A	2	EA	\$56.00	\$112	0.800	1.6	\$82		\$194	\$243
1,338	PDI Type B	2	EA	\$75.00	\$150	0.800	1.6	\$82		\$232	\$290
1,339	Trap Primer	4	EA	\$100.00	\$400	1.500	6.0	\$306		\$706	\$883
1,340	Domestic Water Heater	1	EA	\$10,000.00	\$10,000	16.000	16.0	\$817		\$10,817	\$13,521
1,341		-		,	+ -/	-		*		+ -,	+ -,
1,342											
1,343											
.,0.0											

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,344	45400 5 4 0 0 4										
1,345	15483 Fuel Gas Systems			#4 000 00	#4.000	0.000	0.0	# 400		C4 400	#4 700
1,346	Connect To Service, Valves, Pipe, Fittings	1	LS	\$1,000.00	\$1,000	8.000	8.0	\$408		\$1,408	\$1,760
1,347	Sched 40 Blk Steel										
1,348	1" Pipe, Fittings	100	LF	\$2.63	\$263	0.068	6.8	\$347		\$610	\$763
1,349	1-1/4" - 1-1/2" Pipe, Fittings	100		\$3.57	\$357	0.090	9.0	\$459		\$816	\$1,020
1,350	2" Pipe, Fittings	100		\$4.72	\$472	0.113	11.3	\$577		\$1,049	\$1,311
1,351	3" Pipe, Fittings	100	LF	\$9.52	\$952	0.167	16.7	\$853		\$1,805	\$2,256
1,352				·	•						. ,
1,353	15500 Hydronic Piping & Equipment										
1,354	Pipe & Fittings, Copper Type L										
1,355	Heating System Piping, Copper										
	Type L										
1,356	3/4" Pipe, Fittings	550	LF	\$2.07	\$1,139	0.105	57.8	\$2,951		\$4,090	\$5,113
1,357	1" Pipe, Fittings	240	LF	\$2.70	\$648	0.118	28.3	\$1,445		\$2,093	\$2,616
1,358	1-1/4" - 1-1/2" Pipe, Fittings	240	LF	\$4.25	\$1,020	0.154	37.0	\$1,889		\$2,909	\$3,636
1,359	2" Pipe, Fittings	240	LF	\$6.35	\$1,524	0.190	45.6	\$2,328		\$3,852	\$4,815
1,360	2-1/2" - 3" Pipe, Fittings	240	LF	\$12.65	\$3,036	0.286	68.6	\$3,502		\$6,538	\$8,173
1,361	Sched 40 Blk Steel										
1,362	4" Pipe, Fittings	240		\$13.89	\$3,334	0.200	48.0	\$2,450		\$5,784	\$7,230
1,363	6" Pipe, Fittings	100	LF	\$24.22	\$2,422	0.348	34.8	\$1,777		\$4,199	\$5,249
1,364											
1,365											
1,366											
1,367											
1,368											
1,369											
1,370											
1,371											
1,372											
1,373											
1,374											
1,375											
1,376											
1,377											

No. Description Qty UNITS Unit Total Units Totals Cost Cost Cost Total Cost Cost Total Cost	Total Cost		Total	Equip	Labor	lours	Labor F	Costs	Material (Line
1,379	w/ OH & P		Cost		Cost	Totals	Units	Total	Unit	UNITS	Qty	Description	No.
1,379													4 270
1,380												Undrania Crasialtias	
1,381	\$801	.11	CC 44		የ ራራ	4.2	1 220	¢ E7E	ΦΕ 7 Ε 00	ГΛ	4		
1,382 Expansion Tanks 1			•		\$00	1.3	1.330		·		•		
1,383	\$1,500	00	\$1,200					\$1,200	\$1,200.00	EA	· I	•	
Tank, 100 Gal 1,384 DHW Expansion Tank 1 EA \$65.00 \$65 1.000 1.0 \$51 \$116 1,385 Relief Valve, ASME 2 EA \$135.00 \$270 2.000 4.0 \$204 \$474 1,386 Pressure Gauges 4 EA \$65.00 \$260 0.500 2.0 \$102 \$362 1,387 Thermometers 6 EA \$45.00 \$270 0.500 3.0 \$153 \$423 1,388 Pump, Equipment Flex Connector 4 EA \$150.00 \$600 1.000 4.0 \$204 \$804 1,389 Glycol System 1,390 Mixing Tank 1 EA \$850.00 \$850 6.000 6.0 \$306 \$1,156 1,391 Propylene Glycol 239 GAL \$8.00 \$1,915 0.201 48.1 \$2,456 \$4,371 1,392 Valves, Piping, Feed Reg, 1 LS \$400.00 \$4.00 4.00 4.0 \$204 \$604 Controls 1,393 1,394 15540 HVAC Pumps 1,395 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 1,396 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,401	\$1,946	57	¢1 557		\$204	4.0	4 000	¢1 252	¢1 252 00	ΕΛ	1	•	
1,384 DHW Expansion Tank	φ1,9 4 0	37	Φ1,557		φ204	4.0	4.000	Φ1,333	φ1,333.00	EA	'		1,303
Relief Valve, ASME	\$145	16	\$116		\$51	1.0	1 000	\$65	\$65.00	FΔ	1	·	1 38/
1,386 Pressure Gauges	\$593								·		•	•	
Thermometers	\$453								·			,	
1,388	\$529		•						·		•	<u> </u>	
1,389 Glycol System 1,390 Mixing Tank 1 EA \$850.00 \$850 6.000 6.0 \$306 \$1,156 1,391 Propylene Glycol 239 GAL \$8.00 \$1,915 0.201 48.1 \$2,456 \$4,371 1,392 Valves, Piping, Feed Reg, 1 LS \$400.00 \$400 4.000 4.0 \$204 \$604 Controls	\$1,005										-		
1,390 Mixing Tank	Ψ1,005	04	Ψ004		Ψ204	4.0	1.000	φοσο	ψ130.00	LA	7		
1,391 Propylene Glycol 239 GAL \$8.00 \$1,915 0.201 48.1 \$2,456 \$4,371 1,392 Valves, Piping, Feed Reg, 1 LS \$400.00 \$400 4.00 4.0 \$204 \$604 Controls 1,393 1,394 15540 HVAC Pumps 1,395 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 GPM, 2.5 HP 1,396 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties	\$1,445	56	\$1 156		\$306	6.0	6 000	\$850	\$850.00	EΛ	1	•	
1,392 Valves, Piping, Feed Reg, Controls 1,393 1,394 15540 HVAC Pumps 1,395 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 GPM, 2.5 HP 1,396 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties	\$5,464		. ,						·		•		
Controls 1,393 1,394 15540 HVAC Pumps 1,395 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 GPM, 2.5 HP 1,396 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties	\$755								·				
1,393 1,394 1,395 Main Heating Circ Pump, 300 QPM, 2.5 HP 1,396 AHU Circ Pump, 100 GPM, 1.5 HP 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1,400 Boiler Trim, Foundation, 5 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties	Ψ133	0-	Ψ00+		Ψ204	4.0	4.000	Ψ+00	Ψ-00.00	LO	'		1,002
1,394												Controls	1 303
1,395 Main Heating Circ Pump, 300 2 EA \$2,800.00 \$5,600 8.000 16.0 \$817 \$6,417 GPM, 2.5 HP 1,396 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties												155/0 HVAC Pumps	
GPM, 2.5 HP 1,396 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties	\$8,021	.17	\$6.417		\$817	16.0	8 000	\$5,600	\$2,800,00	FΔ	2		
1,396 AHU Circ Pump, 100 GPM, 1.5 HP 2 EA \$1,200.00 \$2,400 6.000 12.0 \$613 \$3,013 1,397 1,398 Cast Iron Boilers 1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties 1,401	ψ0,021	''	ψ0,+17		φοιν	10.0	0.000	ψ0,000	Ψ2,000.00	L/\	_		1,000
1,397 1,398	\$3,766	13	\$3 013		\$613	12.0	6 000	\$2.400	\$1,200,00	FΔ	2	· · · · · · · · · · · · · · · · · · ·	1 396
1,398	ψ5,700	10	ψ0,010		φοισ	12.0	0.000	Ψ2,400	Ψ1,200.00	L/\	_	7410 One Famp, 100 OF M, 1.5 III	
1,399 Boilers - Cast Iron Oil Fired, 2 EA \$15,800.00 \$31,600 64.865 129.7 \$6,621 \$38,221 1,677 MBH 1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties												Cast Iron Boilers	
1,677 MBH 1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties 1,401	\$47,776	21	\$38 221		\$6 621	129 7	64 865	\$31,600	\$15,800,00	FΔ	2		
1,400 Boiler Trim, Foundation, 1 LS \$23,700.00 \$23,700 97.143 97.1 \$4,957 \$28,657 Specialties 1,401	ψ11,110		ΨΟΟ,ΖΖ 1		Ψ0,021	120.7	01.000	φοι,σσσ	ψ10,000.00	_/\	_		1,000
Specialties 1,401	\$35,821	57	\$28 657		\$4 957	97 1	97 143	\$23,700	\$23,700,00	LS	1	•	1 400
1,401	400,0 2.	•	Ψ=0,00.		Ψ .,σσ.	0	0	Ψ=0,. σσ	Ψ=0,: σσ.σσ	_0	·	· · · · · · · · · · · · · · · · · · ·	.,
												oposialitios .	1 401
1,402 Stack and Flue Vents												Stack and Flue Vents	1,402
1,403 Pressure Stack, 22" 24 LF \$95.00 \$2,280 0.667 16.0 \$817 \$3,097	\$3,871	97	\$3.097		\$817	16.0	0.667	\$2.280	\$95.00	LF	24		
1,404 Fittings, 22" 4 EA \$500.00 \$2,000 1.500 6.0 \$306 \$2,306	\$2,883		. ,						·				
1,405 Roof Support Assy, Penetration, 1 EA \$600.00 \$600 1.875 1.9 \$97 \$697	\$871											•	
Curb	Ψ		430.		Ψ3.			4000	4000.00	_, ·	•	• •	.,
1,406 Stack Cap, Supports 1 EA \$400.00 \$400 1.001 1.0 \$51 \$451	\$564	51	\$451		\$51	1.0	1.001	\$400	\$400.00	EA	1		1.406
1,407	400 1		4.01		Ψ3.			Ψ.00	ψ	_··	•	Time out of the second	

Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,408											
1,408	Terminal Heat Transfer Units										
1,410	(Typ Assy Includes Fittings, AAV,										
1,410	Ctrl Valve,										
1,411	Isolation Valves, Bal Valve)										
1,412	Duct Coils	4	EA	\$240.00	\$960	1.500	6.0	\$306		\$1,266	\$1,583
1,413	Unit Heaters, Util & Fish Rearing	12		\$700.00	\$8,400	4.000	48.0	\$2,450		\$10,850	\$13,563
, -	Areas			*	+ - ,			* ,		* -,	+ -,
1,414	Cabinet Unit Heaters (Entrances)	3	EA	\$893.00	\$2,679	4.000	12.0	\$613		\$3,292	\$4,115
1,415	,										
1,416	15800 Air Distribution										
1,417	Component Air Handlers, Incl Mix										
	Box, Coils,										
1,418	Filter Section, Int. Isolation										
1,419	AHU-1: 62,000 CFM	1	EA	\$124,000.00	\$124,000	40.000	40.0	\$2,114		\$126,114	\$157,643
1,420	Exhaust Fans										
1,421	Toilet Rooms	2	EA	\$200.00	\$400	4.000	8.0	\$423		\$823	\$1,029
1,422	Vent Fans, Utility Sets			* 4 *** ******************************	# 4.000	0.000		0017		0.4 5.4 7	* 4.000
1,423	Mech Room Ventilation, Plenum,	1	LS	\$1,200.00	\$1,200	6.000	6.0	\$317		\$1,517	\$1,896
1 101	Dampers										
1,424	Ductwork										
1,425 1,426	Low Velocity Duct, Incl Allowance										
1,420	For Waste, Supports and Joints										
1,428	Round Spiral, Galvanized	21,700	LBS	\$1.60	\$34,720	0.075	1,627.5	\$86,007		\$120,727	\$150,909
1,429	Rectangular, Galvanized	9,300	LBS	\$1.90	\$17,670	0.084	781.2	\$41,283		\$58,953	\$73,691
1,430	. tootangalan, cananizoa	0,000		ψσσ	Ψ,σσ	0.00		ψ···,=σσ		ψου,σου	ψ. ο,σο.
1,431	Ductwork Accessories										
1,432	Fire/Smoke Dampers	2	EA	\$350.00	\$700	2.000	4.0	\$211		\$911	\$1,139
1,433	Duct Access Doors	2	EA	\$28.00	\$56	0.750	1.5	\$79		\$135	\$169
1,434	Volume Dampers	80	EA	\$18.00	\$1,440	0.500	40.0	\$2,114		\$3,554	\$4,443
1,435											
1,436											
1,437											
1,438											
1,439											

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,440											
1,440	Air Outlets and Inlets: Diffusers,										
1,771	Grilles Incl Boots,										
1,442	Mtg Hdwre, Frames, Accessories										
1,443	S/A Diffusers	130	EA	\$45.00	\$5,850	1.000	130.0	\$6,870		\$12,720	\$15,900
1,444	R/A, E/A, Transfer Grilles	19	EA	\$28.00	\$532	0.660	12.5	\$661		\$1,193	\$1,491
1,445	Louvers, Fixed Alum Incl.	220	SF	\$40.00	\$8,800	0.036	7.9	\$417		\$9,217	\$11,521
,	Birdscreen			•	. ,			·		. ,	. ,
1,446											
1,447	15970 Control Systems										
1,448	Control Points	45	PTS	\$700.00	\$31,640					\$31,640	\$44,296
1,449											
1,450	15990 Balancing & Testing										
1,451	Balance Hydronic System	1	LS	\$200.00	\$200	5.900	5.9	\$317		\$517	\$724
1,452	Balance Air Systems	1	LS	\$200.00	\$200	64.500	64.5	\$3,468		\$3,668	\$5,135
1,453	Commissioning, Startup	1	LS	\$200.00	\$200	120.000	120.0	\$6,453		\$6,653	\$9,314
1,454											
1,455											
1,456											
1,457											
1,458											
1,459											
1,460											
1,461 1,462											
1,462 1,463											
1,463											
1,465											
1,466											
1,467											
1,468											
1,469											
1,470											
1,471	Subtotal: MECHANICAL: Cost based	d on 62.0	000 SF		\$467,915		10,430.0	\$511,033	\$10,544	\$989,492	\$1,222,277
1,472	Average Unit Price for this division is:				÷ · · · · · · ·		2,	, , , ,	,	, ,	+ - ,,
1,473	Average Labor Rate for this division:										
,											

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,474											
1,475	ELECTRICAL										
1,476	16010 Basic Electrical Requirements										
1,477	Field Engineering: Submittals, Shop & Record										
1,478	Dwgs, Operating Instructions, O&M Manuals	100	HRS	\$5.00	\$500	1.000	100.0	\$3,675		\$4,175	\$4,175
1,479	Supervision	38	WEEKS			50.000	1,900.0	\$95,000	\$2,375	\$97,375	\$97,375
1,480	Materials Control	38	WEEKS			30.000	1,140.0	\$23,940	\$2,613	\$26,553	\$26,553
1,481	Bond and Insurance	1	LS	\$12,300.00	\$12,300					\$12,300	\$12,300
1,482	Tools and Equipment	1	LS						\$4,900	\$4,900	\$4,900
1,483											
1,484	Service & Distribution Systems										
1,485	Service Equipment										
1,486	Transformer	500	KVA	\$27.00	\$13,500	0.120	60.0	\$3,258		\$16,758	\$20,948
1,487	Pole Top Disconnect 100A 7.2KV	1	EA	\$2,500.00	\$2,500	8.000	8.0	\$434	\$140	\$3,074	\$3,843
1,488	Ductbank 2"4"C 3#1/0 15kv	500	LF	\$45.11	\$22,555	1.108	554.0	\$30,081		\$52,636	\$65,795
1,489											
1,490	Main Distribution Equipment										
1,491	MDP 600A 280/120V 3Ph 4W	1	EA	\$9,800.00	\$9,800	80.000	80.0	\$4,344		\$14,144	\$17,680
1,492	MDP 600A 280/120V 3Ph 4W	1	EA	\$10,300.00	\$10,300	70.000	70.0	\$3,801		\$14,101	\$17,626
1,493	Disconnect Sw 600A 600V	1	EA	\$1,900.00	\$1,900	13.000	13.0	\$706		\$2,606	\$3,258
1,494											
1,495	Switches										
1,496	600A ATS	1	EA	\$8,200.00	\$8,200	16.000	16.0	\$869		\$9,069	\$11,336
1,497											
1,498	Panelboards										
1,499	Panelboards, 120/208V, 3 Phase,	6	EA	\$1,155.00	\$6,930	10.000	60.0	\$3,258		\$10,188	\$12,735
	4 Wire, 225A, MLO, 42 Circuit, W/Breakers										
1,500											
1,501	Transformer										
1,502	150 KVA Dry Transformer 480/277v-208/120v	1	EA	\$4,200.00	\$4,200	16.000	16.0	\$869		\$5,069	\$6,336
1,503											
1,504											

Line				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 505											
1,505											
1,506	Feeders & Subfeeds	000		000.04	# 44.000	0.070	004.0	045.004		#07.000	# 04.040
1,507	600 Amp: 2 Sets, 3" RGS, 3#350	300	LF	\$39.64	\$11,892	0.970	291.0	\$15,801		\$27,693	\$34,616
1 500	KCMIL, 1#3/0 225 Amp: 2-1/2" RGS, 4#250	750	LF	\$46.65	¢40.400	0.404	202.0	¢46.450		¢20.040	¢26.475
1,508	KCMIL, 1#4	750	LF	\$16.65	\$12,488	0.404	303.0	\$16,452		\$28,940	\$36,175
1,509	150 Amp: 2" RGS, 3#1/0, 1#6	300	LF	\$7.45	\$2,235	0.263	78.9	\$4,284		\$6,519	\$8,149
1,509	100 Amp: 1-1/4" RGS, 3#2, 1#8	200	LF	\$5.63	\$2,233 \$1,126	0.203	42.8	\$2,324		\$3,450	\$4,313
1,510	300 Amp: 3" RGS, 3#350 KCMIL,	150		\$18.64	\$2,796	0.468	70.2	\$3,812		\$6,608	\$8,260
1,511	1#4	150	LI	φ10.04	\$2,790	0.400	10.2	φ3,612		φ0,000	φ0,200
1,512											
1,513	Grounding										
1,514	Ground Bus 12x2x1/4	6	EA	\$35.00	\$210	0.250	1.5	\$81		\$291	\$364
1,515	1" PVC 1#2 Ground	300	LF	\$1.57	\$471	0.082	24.6	\$1,336		\$1,807	\$2,259
1,516	1" PVC 1#1/0 Ground	300	LF	\$1.97	\$591	0.088	26.4	\$1,433		\$2,024	\$2,530
1,517	Ground Rod 3/4" x 10'	4	EA	\$50.00	\$200	1.000	4.0	\$217		\$417	\$521
1,518	Exothermic Connection	20	EA	\$7.00	\$140	0.250	5.0	\$271		\$411	\$514
1,519											
1,520	Power Distribution										
1,521	Receptacles	380	EA								
1,522	Duplex 20A 125V	190	EA	\$2.25	\$428	0.150	28.5	\$1,547		\$1,975	\$2,469
1,523	GFCI Receptacles	95	EA	\$8.45	\$803	0.150	14.3	\$776		\$1,579	\$1,974
1,524	WP GFCI Receptacles	95	EA	\$23.45	\$2,228	0.250	23.8	\$1,292		\$3,520	\$4,400
1,525	Special Purpose Receptacles	5	EA	\$50.00	\$250	1.000	5.0	\$271		\$521	\$651
1,526	Add For:										
1,527	3/4in. EMT	7,600	LF	\$0.48	\$3,648	0.040	304.0	\$16,506		\$20,154	\$25,193
1,528	Add For RGC In Wet Areas	2,280	LF	\$0.35	\$798	0.029	66.1	\$3,589		\$4,387	\$5,484
1,529	3/4in. EMT CONN	760	EA	\$0.50	\$380	0.086	65.4	\$3,551		\$3,931	\$4,914
1,530	3/4in. EMT CPLG	760	EA	\$1.39	\$1,056					\$1,056	\$1,320
1,531	3/4in. EMT STRAP 1-H	1,140	EA	\$0.15	\$171	0.030	34.2	\$1,857		\$2,028	\$2,535
1,532	#12 THHN	25,080	LF	\$0.09	\$2,257	0.005	125.4	\$6,809		\$9,066	\$11,333
1,533	Utility Box 2-1/2 D 1/2 Ko	380	EA	\$1.33	\$505	0.220	83.6	\$4,539		\$5,044	\$6,305
1,534	1G Ss Receptacle Plate	380	EA	\$2.50	\$950	0.030	11.4	\$619		\$1,569	\$1,961
1,535	1In. X10 S-Tap Screw	1,900	EA	\$0.02	\$38	0.025	47.5	\$2,579		\$2,617	\$3,271
1,536											
1,537											

Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,538											
1,539	Headbolt Outlets	10	EA	\$500.00	\$5,000	6.000	60.0	\$3,258		\$8,258	\$10,323
1,540	Wiring 3/4" & 4#10	1,000	LF	\$1.30	\$1,300	0.100	100.0	\$5,430		\$6,730	\$8,413
1,541	Trenching	1,500	LF	\$1.00	\$1,500	0.086	129.0	\$7,004	\$4,500	\$13,004	\$16,255
1,542	Tronoming	1,000		Ψ1.00	Ψ1,000	0.000	120.0	Ψ1,001	Ψ1,000	Ψ10,001	ψ10,200
1,543	16420 Enclosed Controllers										
1,544	Fractional To 1/4 HP	16	EA	\$65.00	\$1,040	1.000	16.0	\$869		\$1,909	\$2,386
1,545	Wiring: Nom. 3/4" EMT 3#10,	480	LF	\$1.17	\$562	0.094	45.1	\$2,449		\$3,011	\$3,764
1,546	Starter/Disconnects 0.5 HP	2	EA	\$250.00	\$500	3.000	6.0	\$326		\$826	\$1,033
1,547	Wiring: Nom. 3/4" EMT 3#10,	160	LF	\$1.17	\$187	0.094	15.0	\$814		\$1,001	\$1,251
1,548	Starter/Disconnects 1 HP	3	EA	\$250.00	\$750	3.000	9.0	\$489		\$1,239	\$1,549
1,549	Wiring: Nom. 3/4" EMT 3#10,	240	LF	\$1.17	\$281	0.094	22.6	\$1,227		\$1,508	\$1,885
1,550	Starter/Disconnects 2.5 HP	2	EA	\$250.00	\$500	3.000	6.0	\$326		\$826	\$1,033
1,551	Wiring: Nom. 3/4" EMT 3#10,	160	LF	\$1.17	\$187	0.094	15.0	\$814		\$1,001	\$1,251
1,552	Starter/Disconnect, AHU 25 HP	1	EA	\$850.00	\$850	8.000	8.0	\$434		\$1,284	\$1,605
1,553	1-1/4" RGS, 4#4, 1#8	80	LF	\$4.75	\$380	0.203	16.2	\$880		\$1,260	\$1,575
1,554	Starter/Disconnect, Fans15 HP	1	EA	\$600.00	\$600	6.000	6.0	\$326		\$926	\$1,158
1,555	Wiring: 1" RGS, 3#4, 1#8	80	LF	\$1.17	\$94	0.094	7.5	\$407		\$501	\$626
1,556	Starter/Disconnect 50 HP	2	EA	\$1,225.00	\$2,450	12.000	24.0	\$1,303		\$3,753	\$4,691
1,557	Wiring: 1-1/4" RGS, 4#2, 1#8	120	LF	\$6.21	\$745	0.217	26.0	\$1,412		\$2,157	\$2,696
1,558	VFD 100A	2	EA	\$7,700.00	\$15,400	30.000	60.0	\$3,258		\$18,658	\$23,323
1,559	MCC Structures	2	EA	\$3,500.00	\$7,000	40.000	80.0	\$4,344		\$11,344	\$14,180
1,560											
1,561	Interior Lighting										
1,562	4' Fluor, 2x4 Sfc Lens, 4L	36	EA	\$85.00	\$3,060	1.250	45.0	\$2,443		\$5,503	\$6,879
1,563	4' HE Fluor, 2x4 Paralouver, 4L	36	EA	\$106.00	\$3,816	1.250	45.0	\$2,443		\$6,259	\$7,824
1,564	Compact Fluorescents	25	EA	\$85.00	\$2,125	1.000	25.0	\$1,357		\$3,482	\$4,353
1,565	400W Metal Halide	276	EA	\$700.00	\$192,889	3.000	826.7	\$44,888		\$237,777	\$297,221
1,566	Occupancy Sensors	20	EA	\$90.00	\$1,800	1.250	25.0	\$1,357		\$3,157	\$3,946
1,567	Exit Sign, LED	12	EA	\$56.00	\$661	2.000	23.6	\$1,281		\$1,942	\$2,428
1,568	Emerg. Batt Wall Pack	40	EA	\$175.00	\$7,000	3.000	120.0	\$6,516		\$13,516	\$16,895
1,569	Switches	21	EA	\$17.81	\$372	0.529	11.1	\$603		\$975	\$1,219
1,570	Wiring: 3/4" Cond, 3-#12, Gnd	7,300	LF	\$0.96	\$7,008	0.080	584.0	\$31,710		\$38,718	\$48,398
1,571	Lighting Controls	1	LS	\$5,000.00	\$5,000	18.571	18.6	\$1,010		\$6,010	\$7,513
1,572											
1,573											

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,574											
1,575	Exterior Lighting										
1,576	Wall Mtd 70 W HPS	8	EA	\$180.00	\$1,440	2.000	16.0	\$869		\$2,309	\$2,886
1,577	Wall Mtd 150 W HPS	22	EA	\$385.00	\$8,501	2.500	55.2	\$2,997		\$11,498	\$14,373
1,578	Wiring: 3/4" Cond, 3-#12, Gnd	1,053	LF	\$0.96	\$1,011	0.080	84.2	\$4,572		\$5,583	\$6,979
1,579		.,		40.00	4 1,0 1 1		•	¥ 1,21 =		40,000	4 • , • · ·
1,580	Lighting Controls	1	LS	\$1,100.00	\$1,100	14.000	14.0	\$760		\$1,860	\$2,325
1,581	1: Luminaire On 30' Tall Pole,	4	EA	\$2,000.00	\$8,000	10.000	40.0	\$2,172		\$10,172	\$12,715
.,	400W Mh			+ =,	40,000			4 -,··-		¥ . • , =	4 ,-
1,582	2: Luminaire On 30' Tall Pole,	2	EA	\$2,700.00	\$5,400	16.000	32.0	\$1,738		\$7,138	\$8,923
.,	400W Mh			+ =,: • • • • •	40,100			4 1,1 00		4 1,133	¥ = , = = =
1,583	Wiring: 3/4" Cond, 3-#12, Gnd	1,050	LF	\$1.25	\$1,313	0.100	105.0	\$5,701		\$7,014	\$8,768
1,584	Trenching	1,050	LF	\$1.00	\$1,050	0.100	105.0	\$5,701	\$3,675	\$10,426	\$13,033
1,585	3	,		•	, ,			+ - , -	+ - /	+ -, -	, ,,,,,,,
1,586	Fire Alarm & Detection										
1,587	FACP	1	EA	\$4,590.00	\$4,590	26.229	26.2	\$1,418		\$6,008	\$8,111
1,588	FAA	1	EA	\$1,500.00	\$1,500	8.000	8.0	\$433		\$1,933	\$2,610
1,589	Horn/Strobe	12	EA	\$92.00	\$1,104	1.500	18.0	\$974		\$2,078	\$2,805
1,590	Manual Pull Station	8	EA	\$85.00	\$680	1.000	8.0	\$433		\$1,113	\$1,503
1,591	Heat Detector	6	EA	\$60.00	\$360	1.000	6.0	\$325		\$685	\$925
1,592	Smoke Detector, Duct	2	EA	\$220.00	\$440	2.500	5.0	\$271		\$711	\$960
1,593	Smoke Detector, Ceiling	8	EA	\$85.00	\$680	1.300	10.4	\$563		\$1,243	\$1,678
1,594	Wiring	1,800	LF	\$0.85	\$1,530	0.071	127.8	\$6,917		\$8,447	\$11,403
1,595	Design, Approvals, Testing	1	LS	\$3,000.00	\$3,000					\$3,000	\$4,050
1,596											
1,597	Computer Outlets										
1,598	Distribution Frames and Racks	1	LS	\$15,000.00	\$15,000	80.000	80.0	\$4,330		\$19,330	\$24,163
1,599	Outlets, Incl Cat 5 Wiring, Conduit	100	EA	\$65.00	\$6,500	2.000	200.0	\$10,824		\$17,324	\$21,655
1,600	Cable Tray	773	LF	\$12.00	\$9,274	0.250	193.2	\$10,456		\$19,730	\$24,663
1,601	Design, Test System	1	LS	\$7,050.00	\$7,050					\$7,050	\$8,813
1,602											
1,603	Misc Special Systems	62,000	SF	\$1.00	\$62,000					\$62,000	\$77,500
1,604	-										
1,605	Subtotal: ELECTRICAL: Cost base	d on 62,0	00 SF		\$542,926		9,183.0	\$450,613	\$18,203	\$1,011,742	\$1,230,885
1,606	Average Unit Price for this division is										• •
1,607	Average Labor Rate for this division		•								

Line				Material (Labor I		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,608											
•	EXISTING FACILITY RENOVATION &	1	LS								
	UPGRADES	-									
1,610	Water Aeration Building										
1,611	New Doors and Hardware, Suitable For Wet Environments.	4	EA	\$1,500.00	\$6,000	10.000	40.0	\$2,016		\$8,016	\$8,016
1,612	Repair/Replace Existing Steel Walkways	1	LS	\$5,000.00	\$5,000					\$5,000	\$5,000
1,613											
1,614	New Metal Roof On Aeration Tower	784	SF								
1,615	Demolition	784	SF	\$0.10	\$78	0.030	23.5	\$1,262		\$1,340	\$1,608
1,616	Metal Roofing, Insulated	784	SF	\$7.50	\$5,880	0.160	125.4	\$6,732		\$12,612	\$15,134
1,617	Modify Chain Link Fence Surrounding The Towers	960	SF	\$1.00	\$960	0.057	54.7	\$2,757		\$3,717	\$3,717
1,618	· ·										
1,619	Additional Heat and Lighting In The Pump Room Below The Aeration Towers	1	LS	\$10,000.00	\$10,000					\$10,000	\$10,000
1,620	New Pumping System To Pressurize The Warm and Cold Water Supply Lines To The Site, Integrate With Existing Systems	1	LS	\$50,000.00	\$50,000					\$50,000	\$50,000
1,621											
1,622											
1,623											
1,624											
1,625											
1,627											
1,628											
1,629 1,630											
1,631	Subtotal Water Agretion Buildings C	oct hee	od on 676		\$77,918		243.6	\$12,767		\$90,685	¢02 475
1,631 1,632 1,633	Subtotal: Water Aeration Building: C Average Unit Price for this division is: Average Labor Rate for this division:	\$138.28	3 per		φ <i>ιι</i> ,910		2 4 3.0	Φ12,707		φ υ 0,005	\$93,475

Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,634											
1,635	Well Field and Water Distribution Sys	tem									
1,636	Upgrade Well Pump Control	1	LS	\$50,000.00	\$50,000					\$50,000	\$50,000
	System. Add VFD Controls, Sump Level Sensor.										
1,637											
1,638	Replace and Extend Cold and	23,200	LF								
	Warm Water Feeds From										
	Aeration Building To Hatchery										
	Facilities. Priced Below:										
1,639											
1,640	Water Main - Warm	11,600	LF								
1,641	Trench Excavation W/Hyd. Exc.	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
1,642	Backfill In Trenches, W/Excavated	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
	Matl										
1,643	Pipe Bedding	2,320	CY	\$19.80	\$45,936	0.050	116.0	\$6,021	\$7,540	\$59,497	\$68,422
1,644	8" DIP	11,600	LF	\$13.00	\$150,800	0.257	2,981.2	\$154,736		\$305,536	\$351,366
1,645	Insulation	11,600	LF	\$4.21	\$48,836	0.086	997.6	\$51,779		\$100,615	\$115,707
1,646	Connect To Existing	1	EA	\$500.00	\$500					\$500	\$575
1,647	8" Gate Valve W/Valve Box	8	EA	\$750.00	\$6,000	4.000	32.0	\$1,661	\$520	\$8,181	\$9,408
1,648	Hydrostatic Testing	11,600	LF			0.020	232.0	\$12,042		\$12,042	\$13,848
1,649											
1,650	Water Main - Cold	11,600	LF								
1,651	Trench Excavation W/Hyd. Exc.	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
1,652	Backfill In Trenches, w/Excavated Matl	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
1,653	Pipe Bedding	2,320	CY	\$19.80	\$45,936	0.050	116.0	\$6,021	\$7,540	\$59,497	\$68,422
1,654	8" DIP	11,600	LF	\$13.00	\$150,800	0.257	2,981.2	\$154,736		\$305,536	\$351,366
1,655	Connect To Existing	1	EA	\$500.00	\$500					\$500	\$575
1,656	8" Gate Valve W/Valve Box	8	EA	\$750.00	\$6,000	4.000	32.0	\$1,661	\$520	\$8,181	\$9,408
1,657	Hydrostatic Testing	11,600	LF			0.020	232.0	\$12,042		\$12,042	\$13,848
1,658											
1,659											
1,660	Subtotal: Well Field and Water Distr	ribution S	ystem: Co	st based on 6	\$505,308		13,868.0	\$719,803	\$348,653	\$1,573,764	\$1,802,329
1,661	Average Unit Price for this division is										•
1,662	Average Labor Rate for this division										

ine				Material (Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
lo.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
663											
664	Shop Complex										
65	New Concrete Slab Floor In Cold	1,200	SF								
	Storage Bay	-,									
66	Demolition Slab	1,200	SF			0.020	24.0	\$1,234	\$420	\$1,654	\$1,654
67	New 6" Slab On Grade	1,200	SF	\$2.60	\$3,120	0.066	79.2	\$4,071	\$333	\$7,524	\$7,524
68											
69	New Galvanized Finished Metal	3,840	SF								
	Siding										
70	Demolition Siding	3,840	SF			0.030	115.2	\$5,921		\$5,921	\$5,921
71	Metal Siding	3,840	SF	\$8.00	\$30,720	0.057	218.9	\$11,252	\$960	\$42,932	\$42,932
72	Welding Exhaust and Makeup Air System	1	LS	\$3,500.00	\$3,500	80.000	80.0	\$4,228		\$7,728	\$9,660
73	5, 5.5										
75											
76											
77											
78											
79	Subtotal: Shop Complex: Cost base				\$37,340		517.3	\$26,706	\$1,713	\$65,759	\$67,691
80	Average Unit Price for this division is		•								
81	Average Labor Rate for this division:	\$51.63 p	er hour								
82 83	Water Filtration Building	1,595	SF								
84	Remove Equipment	1,393	LS	\$100.00	\$100	100.000	100.0	\$5,105	\$500	\$5,705	\$7,131
85	Refinish, Use For Storage	1,595	SF	\$2.00	\$3,190	0.143	228.1	\$11,724	ΨΟΟΟ	\$14,914	\$14,914
86	Cover Drum Filter Pit With Steel	240	SF	\$12.00	\$2,880	0.100	24.0	\$1,300		\$4,180	\$4,598
	Grate Floor		- .	ψ.2.00	Ψ2,000	000	25	ψ.,σσσ		ψ.,.σο	ψ.,οοο
87	Add OH Door	1	EA	\$4,500.00	\$4,500	40.000	40.0	\$1,908		\$6,408	\$7,369
88		•		ψ .,σσσ.σσ	Ţ 1,000	.5.000	10.0	\$ 1,000		ψ5,100	ψ.,σσο
89											
90											
91											
•		Cost box	od on 1 50	5 QE	\$10,670		392.1	\$20,037	\$500	\$31,207	\$34,012
92	Subtotal: Water Filtration Building:	COSt Das	5eu 011 1,35	J JI	φιο,σιο		00	Ψ=0,00.		ΨΟ:,=Ο:	Ψ0 -7,0 1 -
	Subtotal: Water Filtration Building: Average Unit Price for this division is			3 31	Ψισ,σισ		002.1	Ψ20,007	φοσσ	φοι,2οι	Ψ0-1,012

Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,695		_									
	EQUIPMENT	1	LS								
1,697	Hatchery Equipment										
1,698											
1,699	Culture Tankage			A 547.05	00.070	00.440	044.0	00.400		0 40 5 0 5	# 40.505
1,700	1.0m3 Culture Tank	4	EA	\$517.95	\$2,072	60.440	241.8	\$8,463		\$10,535	\$10,535
1,701	Associated Screens and Plumbing	4	EA	\$664.42	\$2,658					\$2,658	\$2,658
1,702	Skirts	4	EA	\$170.94	\$684	400 704	7.000.0	0055445		\$684	\$684
1,703	7.8m3 Culture Tank	67	EA	\$2,166.67	\$145,167	108.791	7,289.0	\$255,115		\$400,282	\$400,282
1,704	Drain Sump and Screen	67	EA	\$171.15	\$11,467					\$11,467	\$11,467
1,705	Side Box Drain and Screen	67	EA	\$769.23	\$51,538					\$51,538	\$51,538
1,706	Bottom Drain Standpipe	67	EA	\$288.46	\$19,327	400.004	0.400.4	0001000		\$19,327	\$19,327
1,707	40m3 Culture Tank	48	EA	\$6,249.23	\$299,963	169.231	8,123.1	\$284,309		\$584,272	\$584,272
1,708	Drain Sump and Screen	48	EA	\$313.46	\$15,046					\$15,046	\$15,046
1,709	Side Box Drain and Screen	48	EA	\$846.15	\$40,615					\$40,615	\$40,615
1,710	Bottom Drain Standpipe	48	EA	\$384.62	\$18,462					\$18,462	\$18,462
1,711	60m3 Culture Tank	29	EA	\$10,923.08	\$316,769	193.407	5,608.8	\$196,308		\$513,077	\$513,077
1,712	Drain Sump and Screen	29	EA	\$530.77	\$15,392					\$15,392	\$15,392
1,713	Side Box Drain and Screen	29	EA	\$887.69	\$25,743					\$25,743	\$25,743
1,714	Bottom Drain Standpipe	29	EA	\$384.62	\$11,154					\$11,154	\$11,154
1,715											
1,716	Rainbow Trout Fingerling Filtration										
1,717	Drum Filter	1	EA	\$15,926.68		1,498.901	1,498.9	\$52,462		\$68,389	\$68,389
1,718	Backwash, Level Control, 3 Phase	1	EA	\$1,897.81	\$1,898					\$1,898	\$1,898
1,719	Gas Transfer Systems	1	EA	\$26,923.08	\$26,923					\$26,923	\$26,923
1,720	Pump Sump	1	EA	\$7,500.00	\$7,500					\$7,500	\$7,500
1,721	Pumps	2	EA	\$2,884.62	\$5,769					\$5,769	\$5,769
1,722	Controls	1	EA	\$8,653.85	\$8,654					\$8,654	\$8,654
1,723	Related Plumbing	1	EA	\$43,269.23	\$43,269					\$43,269	\$43,269
1,724											
1,725											
1,726											
1,727											
1,728											
1,729											
1,730											

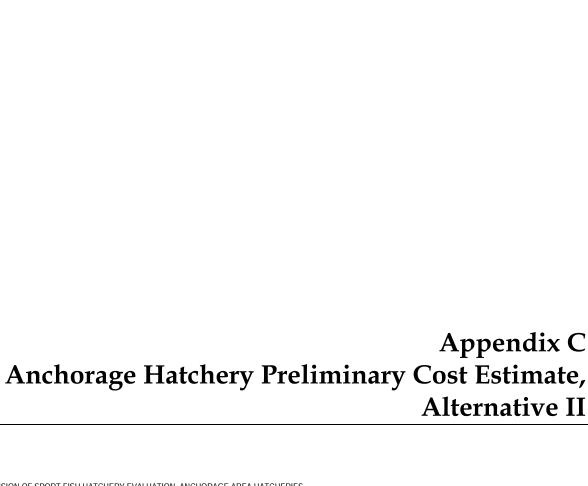
Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 704											
1,731 1,732	Rainbow Trout Catchable Filtration										
1,732	Drum Filter	3	EA	\$18,869.11	\$56 607	4,472.527	12 /17 6	\$469,616		\$526,223	\$526,223
1,733	Backwash, Level Control, 3 Phase	3	EA	\$2,506.58	\$7,520	4,412.321	13,417.0	φ409,010		\$7,520	\$520,223 \$7,520
1,734	Biofilter	3	EA	\$17,307.69	\$51,923					\$51,923	\$51,923
1,736	Gas Transfer Systems	29	EA	\$20,287.69	\$588,343					\$588,343	\$588,343
1,737	Pump Sump	3	EA	\$10,000.00	\$30,000					\$30,000	\$30,000
1,738	Pumps	6	EA	\$3,365.38	\$20,192					\$20,192	\$20,192
1,739	Controls	3	EA	\$9,615.38	\$28,846					\$28,846	\$28,846
1,740	UV	3	EA	\$67,307.69	\$201,923					\$201,923	\$201,923
1,741	Related Plumbing	3	EA	\$62,500.00	\$187,500					\$187,500	\$187,500
1,742	r tolated r lambling	Ū	_, .	φο2,000.00	Ψ.σ.,σσσ					Ψ101,000	ψ.σ.,σσσ
1,743	Rainbow Trout Brood Filtration										
1,744	Drum Filter	2	EA	\$11,548.43	\$23,097	2,659.341	5,318.7	\$186,155		\$209,252	\$209,252
1,745	Backwash, Level Control, 3 Phase	2	EA	\$2,075.68	\$4,151	,	•	. ,		\$4,151	\$4,151
1,746	Biofilter	2	EA	\$11,538.46	\$23,077					\$23,077	\$23,077
1,747	Gas Transfer Systems	10	EA	\$20,287.69	\$202,877					\$202,877	\$202,877
1,748	Pump Sump	2	EA	\$6,000.00	\$12,000					\$12,000	\$12,000
1,749	Pumps	4	EA	\$2,115.38	\$8,462					\$8,462	\$8,462
1,750	Controls	2	EA	\$6,730.77	\$13,462					\$13,462	\$13,462
1,751	UV	2	EA	\$28,846.15	\$57,692					\$57,692	\$57,692
1,752	Related Plumbing	2	EA	\$40,384.62	\$80,769					\$80,769	\$80,769
1,753											
1,754	Arctic Char Fingerling and Catchable	e Filtration									
1,755	Drum Filter	1	EA	\$9,500.96	\$9,501	1,789.011	1,789.0	\$62,615		\$72,116	\$72,116
1,756	Backwash, Level Control, 1 Phase	1	EA	\$2,506.15	\$2,506					\$2,506	\$2,506
1,757	Biofilter	1	EA	\$7,775.00	\$7,775					\$7,775	\$7,775
1,758	Gas Transfer Systems	3	EA	\$20,287.69	\$60,863					\$60,863	\$60,863
1,759	Pump Sump	1	EA	\$4,500.00	\$4,500					\$4,500	\$4,500
1,760	Pumps	2	EA	\$1,682.69	\$3,365					\$3,365	\$3,365
1,761	Controls	1	EA	\$5,769.23	\$5,769					\$5,769	\$5,769
1,762	UV	1	EA	\$19,230.77	\$19,231					\$19,231	\$19,231
1,763	Related Plumbing	1	EA	\$38,461.54	\$38,462					\$38,462	\$38,462
1,764											
1,765											
1,766											

Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 707											
1,767	Austic Oben Duce d Filtration										
1,768	Arctic Char Brood Filtration	4	ΓΛ	ΦΩ ΕΩΩ ΩC	CO FO	0.045.055	0.045.4	#00.070		CO4 COO	CO4 COO
1,769	Drum Filter	1	EA	\$9,500.96	\$9,501	2,345.055	2,345.1	\$82,079		\$91,580	\$91,580
1,770	Backwash, Level Control, 1 Phase	1	EA	\$2,506.15	\$2,506					\$2,506	\$2,506
1,771	Biofilter	1	EA	\$10,576.92	\$10,577					\$10,577	\$10,577
1,772	Gas Transfer Systems	4	EA	\$20,287.69	\$81,151					\$81,151	\$81,151
1,773	Pump Sump	1	EA	\$5,000.00	\$5,000					\$5,000	\$5,000
1,774	Pumps	2	EA	\$1,923.08	\$3,846					\$3,846	\$3,846
1,775	Controls	1	EA	\$6,730.77	\$6,731					\$6,731	\$6,731
1,776	UV	1	EA	\$28,846.15	\$28,846					\$28,846	\$28,846
1,777	Related Plumbing	1	EA	\$40,384.62	\$40,385					\$40,385	\$40,385
1,778											
1,779	Silver Salmon Fingerlings Filtration										
1,780	Drum Filter	1	EA	\$11,548.43		1,087.912	1,087.9	\$38,077		\$49,625	\$49,625
1,781	Backwash, Level Control, 3 Phase	1	EA	\$2,075.68	\$2,076					\$2,076	\$2,076
1,782	Gas Transfer Systems	1	EA	\$21,153.85	\$21,154					\$21,154	\$21,154
1,783	Pump Sump	1	EA	\$5,769.23	\$5,769					\$5,769	\$5,769
1,784	Pumps	2	EA	\$2,403.85	\$4,808					\$4,808	\$4,808
1,785	Controls	1	EA	\$7,692.31	\$7,692					\$7,692	\$7,692
1,786	Related Plumbing	1	EA	\$33,653.85	\$33,654					\$33,654	\$33,654
1,787											
1,788	Silver Salmon Smolt Filtration										
1,789	Drum Filter	2	EA	\$18,869.11	\$37,738	5,137.363	10,274.7	\$359,615		\$397,353	\$397,353
1,790	Backwash, Level Control, 3 Phase	2	EA	\$2,506.58	\$5,013					\$5,013	\$5,013
1,791	Biofilter	2	EA	\$21,153.85	\$42,308					\$42,308	\$42,308
1,792	Gas Transfer Systems	15	EA	\$25,640.00	\$384,600					\$384,600	\$384,600
1,793	Pump Sump	2	EA	\$11,538.46	\$23,077					\$23,077	\$23,077
1,794	Pumps	4	EA	\$3,365.38	\$13,462					\$13,462	\$13,462
1,795	Controls	2	EA	\$10,096.15	\$20,192					\$20,192	\$20,192
1,796	UV	2	EA	\$76,923.08	\$153,846					\$153,846	\$153,846
1,797	Related Plumbing	2	EA	\$72,115.38	\$144,231					\$144,231	\$144,231
1,798	Troiciou Fidinioning	_		Ψ12,110.00	Ψ111,201					ψ111,201	ψ111,201
1,799											
1,800											
1,800											
1,801											
1,002											

Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,803											
1,804	King Salmon Fingerling Filtration										
1,805	Drum Filter	1	EA	\$9,500.96		1,087.912	1,087.9	\$38,077		\$47,578	\$47,578
1,806	Backwash, Level Control, 3 Phase	1	EA	\$2,506.15	\$2,506					\$2,506	\$2,506
1,807	Gas Transfer Systems	1	EA	\$17,307.69	\$17,308					\$17,308	\$17,308
1,808	Pump Sump	1	EA	\$4,326.92	\$4,327					\$4,327	\$4,327
1,809	Pumps	2	EA	\$1,682.69	\$3,365					\$3,365	\$3,365
1,810	Controls	1	EA	\$5,769.23	\$5,769					\$5,769	\$5,769
1,811	Related Plumbing	1	EA	\$28,846.15	\$28,846					\$28,846	\$28,846
1,812											
1,813	King Salmon Smolt and Catchable F	iltration									
1,814	Drum Filter	2	EA	\$25,872.71	\$51,745	5,173.626	10,347.3	\$362,156		\$413,901	\$413,901
1,815	Backwash, Level Control, 3 Phase	2	EA	\$2,506.58	\$5,013					\$5,013	\$5,013
1,816	Biofilter	2	EA	\$28,975.00	\$57,950					\$57,950	\$57,950
1,817	Gas Transfer Systems	14	EA	\$25,640.00	\$358,960					\$358,960	\$358,960
1,818	Pump Sump	2	EA	\$15,384.62	\$30,769					\$30,769	\$30,769
1,819	Pumps	4	EA	\$3,846.15	\$15,385					\$15,385	\$15,385
1,820	Controls	2	EA	\$11,538.46	\$23,077					\$23,077	\$23,077
1,821	UV	2	EA	\$96,153.85	\$192,308					\$192,308	\$192,308
1,822	Related Plumbing	2	EA	\$76,923.08	\$153,846					\$153,846	\$153,846
1,823	•										
1,824	Arctic Grayling Fingerling and Catch	able Filt	ration								
1,825	Drum Filter	1	EA	\$9,500.96	\$9,501	1,789.011	1,789.0	\$62,615		\$72,116	\$72,116
1,826	Backwash, Level Control, 1 Phase	1	EA	\$2,506.15	\$2,506					\$2,506	\$2,506
1,827	Biofilter	1	EA	\$7,775.00	\$7,775					\$7,775	\$7,775
1,828	Gas transfer systems	3	EA	\$20,287.69	\$60,863					\$60,863	\$60,863
1,829	Pump Sump	1	EA	\$4,500.00	\$4,500					\$4,500	\$4,500
1,830	Pumps	2	EA	\$1,682.69	\$3,365					\$3,365	\$3,365
1,831	Controls	1	EA	\$5,769.23	\$5,769					\$5,769	\$5,769
1,832	UV	1	EA	\$19,230.77	\$19,231					\$19,231	\$19,231
1,833	Related Plumbing	1	EA	\$38,461.54	\$38,462					\$38,462	\$38,462
1,834		-		, - , -	,, - -					+ , 	+ , » <u>-</u>
1,835											
1,836											
1,837											
1,838											

Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 000											
1,839											
1,840	Incubation System	450		# 4 4 7 0 00	\$204.500	7.000	4 000 0	# 00 400		#	A 000 000
1,841	Incubation Trays	150	EA	\$1,476.92	\$221,538	7.326	1,098.9	\$38,462		\$260,000	\$260,000
1,842	Stands and Supports	1	EA	\$46,153.85	\$46,154					\$46,154	\$46,154
1,843	Distribution Plumbing, Header and Collection Troughs	1	EA	\$42,307.69	\$42,308					\$42,308	\$42,308
1,844											
1,845	Monitoring and Alarm Systems										
1,846	Water Quality Monitoring Systems	14	EA	\$7,500.00	\$105,000	94.192	1,318.7	\$46,155		\$151,155	\$151,155
1,847	Wire and Conduit	1	EA	\$50,000.00	\$50,000					\$50,000	\$50,000
1,848	Water Quality Monitoring PC	2	EA	\$1,269.23	\$2,538					\$2,538	\$2,538
1,849	Software	2	EA	\$2,200.00	\$4,400					\$4,400	\$4,400
1,850	Central Alarm System	1	EA	\$153,846.15	\$153,846	1,648.352	1,648.4	\$57,694		\$211,540	\$211,540
1,851	Water Flow Meters	15	EA	\$1,107.69	\$16,615					\$16,615	\$16,615
1,852	Water Test Kits	4	EA	\$369.23	\$1,477					\$1,477	\$1,477
1,853											
1,854	Fish Handling, Feeding, and Husban	dry Equ	ipment								
1,855	Cart Mounted Fish Pump	2	EA	\$16,923.08	\$33,846					\$33,846	\$33,846
1,856	Fish Handling Troughs and	2	EA	\$19,230.77	\$38,462	439.560	879.1	\$30,769		\$69,231	\$69,231
	Related Plumbing										
1,857	Crowding Devices	6	EA	\$7,692.31	\$46,154					\$46,154	\$46,154
1,858	Automated Feeding System	1	EA	\$288,461.54	\$288,462	1,648.352	1,648.4	\$57,694		\$346,156	\$346,156
1,859	Miscellaneous Culture Equipment	2	EA	\$23,076.92	\$46,154					\$46,154	\$46,154
1,860											
1,861	Plumbing										
1,862	Influent Distribution Piping To Tanks	1	EA	\$198,846.15	\$198,846	3,296.703	3,296.7	\$115,385		\$314,231	\$314,231
1,863	Waste Collection Plumbing	1	EA	\$126,923.08	\$126,923	1,648.352	1,648.4	\$57,694		\$184,617	\$184,617
1,864	Miscellaneous Culture System Piping	1	EA	\$46,153.85	\$46,154	·	,	. ,		\$46,154	\$46,154
1,865	1 3										
1,866											
1,867											
1,868											
1,869											
1,870											

Description xygenation Dxygen Generator	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost Cost	w/ OH & P
on, gon conorato.	2	EA	\$24,038.46	\$48,077	65.934	131.9	\$4,617	\$52,694	\$52,694
Concrete Pad For Bulk Oxygen Backup	1	EA	\$15,384.62	\$15,385	219.780	219.8	\$7,693	\$23,078	\$23,078
Backup Oxygen System and Diffusers	1	EA	\$57,692.31	\$57,692	329.670	329.7	\$11,540	\$69,232	\$69,232
Oxygen Distribution Piping and Flow Meters	1	EA	\$61,538.46	\$61,538	659.341	659.3	\$23,076	\$84,614	\$84,614
eating Systems									
Boiler / Heat Exchanger Systems	1	EA	\$461,538.46	\$461,538	1,318.681	1,318.7	\$46,155	\$507,693	\$507,693
Miscellaneous Pumps, Controls, Etc	1	EA	\$53,846.15	\$53,846				\$53,846	\$53,846
scellaneous Installation									
Miscellaneous Installation Labor	1	EA			1,648.352	1,648.4	\$57,694	\$57,694	\$57,694
System Electrical Wiring Estimate	1	EA	\$192,307.69			3,956.0	\$138,460	\$330,768	\$330,768
Γank and Filtration Access ₋adders and Walkways	1	EA	\$153,846.15	\$153,846	1,648.352	1,648.4	\$57,694	\$211,540	\$211,540
Machine Time For Pipe and Equipment Placement	1	EA			1,318.681	1,318.7	\$46,155	\$46,155	\$46,155
Pipe Supports and Hangers	1	EA	\$30,769.23	\$30,769				\$30,769	\$30,769
ontingency (15%)	1	LS	\$1,627,083.38	\$1,627,083				\$1,627,083	\$1,627,083
lowance For Shipping (2%)	1	LS	\$151,852.91	\$151,853				\$151,853	\$151,853
) SF	\$9,371,580		92,988.3	\$3,254,599	\$12,626,179	\$12,626,179
	Diffusers Dxygen Distribution Piping and Flow Meters Pating Systems Boiler / Heat Exchanger Systems Miscellaneous Pumps, Controls, Etc Scellaneous Installation Miscellaneous Installation Labor Bystem Electrical Wiring Estimate Fank and Filtration Access Ladders and Walkways Machine Time For Pipe and Equipment Placement Pipe Supports and Hangers Portingency (15%) Dowance For Shipping (2%)	Diffusers Dxygen Distribution Piping and Flow Meters Pating Systems Boiler / Heat Exchanger Systems Miscellaneous Pumps, Controls, Etc Scellaneous Installation Miscellaneous Installation Labor System Electrical Wiring Estimate Fank and Filtration Access Ladders and Walkways Machine Time For Pipe and Equipment Placement Pipe Supports and Hangers Intingency (15%) Dowance For Shipping (2%) Distribution Access 1 Distribution Access	Diffusers Divigen Distribution Piping and Distribution Piping and Divigen Distribution Piping and Divigen Distribution Piping and Divigen Distribution Piping and Divigen Distribution Piping Systems Divigen Distribution Piping Divigen Divi	Diffusers Daygen Distribution Piping and Diffusers Daystems Diffusers Diffusers Daystems Diffusers Diffusers Daystems Diffusers Diffusers Diffusers Daystem Electrical Piping Estimate Diffusers Daystem Electrical Wiring Estimate Diffusers	Diffusers Dixygen Distribution Piping and Diffusers Dixygen Distribution Piping and Diffusers Dixygen Distribution Piping and Diffusers Divident Placement Diffusers D	Diffusers Daygen Distribution Piping and Diffusers Daygen Distribution Piping Adenacy Daygen Distribution Piping Adenacy Diffusers Daygen Distribution Piping Adenacy Diffusers Daygen Distribution Piping Adenacy Diffusers Daygen Distribution Piping Adenacy Daysen Settles Daysen Da	Diffusers Daygen Distribution Piping and 1 EA \$61,538.46 \$61,538 659.341 659.3 Flow Meters Stating Systems	Diffusers Daygen Distribution Piping and 1 EA \$61,538.46 \$61,538 659.341 659.3 \$23,076 Pilow Meters ating Systems Doiller / Heat Exchanger Systems 1 EA \$461,538.46 \$461,538 1,318.681 1,318.7 \$46,155 Discellaneous Pumps, Controls, 1 EA \$53,846.15 \$53,846 Etc scellaneous Installation Miscellaneous Installation Using Estimate 1 EA \$192,307.69 \$192,308 3,956.044 3,956.0 \$138,460 Fank and Filtration Access 1 EA \$153,846.15 \$153,846 1,648.352 1,648.4 \$57,694 Ladders and Walkways Machine Time For Pipe and 1 EA \$1,318.681 1,318.7 \$46,155 Equipment Placement Pipe Supports and Hangers 1 EA \$30,769.23 \$30,769 Intingency (15%) 1 LS \$1,627,083.38 \$1,627,083 Divotal: Hatchery Equipment: Cost based on 62,000 SF \$9,371,580 92,988.3 \$3,254,599 Exercise Days Divotal: Hatchery Equipment: Cost based on 62,000 SF \$9,371,580 92,988.3 \$3,254,599 Exercise Days Divotal: Hatchery Equipment: Cost based on 62,000 SF \$9,371,580 92,988.3 \$3,254,599 Exercise Days Divotal: Hatchery Equipment: Cost based on 62,000 SF \$9,371,580 92,988.3 \$3,254,599 Exercise Days Divotal: Hatchery Equipment: Cost based on 62,000 SF \$9,371,580 92,988.3 \$3,254,599	Diffusers



Fort Richardson State Fish Hatchery Sportfish Division, ADF&G Anchorage, Alaska

Construction Cost Estimate - Alternative II
Conceptual Estimate
November 3, 2004



1225 E. International Airport Road, Suite 205 Anchorage, Alaska 99518 907.561.0790

Prepared for: CH2M Hill

301 West Northern Lights Blvd, Suite 601 Anchorage, Alaska 99503-2691 907.278.2551

Construction Cost Estimate - Alternative II
Conceptual Estimate
November 3, 2004

General Information

Based on 2006 procurement/2006 construction.

Documents

Concept Design

Notes and Assumptions

- 1 Labor rates based on Davis Bacon, 40 hours/week.
- Weather, logistics and construction time window has been considered, assuming a spring start of construction.
- 3 Local contractor with limited room and board.
- 4 Furniture, Fixtures & Equipment are not included in the estimate.
- 5 This estimate is for construction cost only. No Design, Engineering, Construction Administration or other Owner costs included in this estimate.
- 6 Process and Water treatment equipment estimates provided by PRAqua Technologies Ltd.

Fort Richardson State Fish Hatchery

Sportfish Division, ADF&G

Prepared for CH2M Hill by Estimations

Description	Qty	Unit	Estimated Cost	Totals	Estimated Cost with Genl Requirements Distributed	Estimated Cost Plus Contingencies
GENERAL REQUIREMENTS	12	MONTHS		\$2,545,220		
GENERAL REQUIREMENTS			\$2,545,220			
SITE DEVELOPMENT	4	ACRE		\$1,385,092	\$1,600,785	\$1,972,020
SITE PREPARATION, DEMOLITION SITE DEVELOPMENT SITE IMPROVEMENTS SITE UTILITIES			\$440,032 \$410,277 \$284,831 \$249,952			
NEW HATCHERY BUILDING	47,359	SF		\$4,230,825	\$4,889,667	\$6,023,624
CONCRETE MASONRY			\$505,597			
METALS WOOD AND PLASTIC			\$25,869 \$5,000			
THERMAL & MOISTURE PROTECTION			\$37,365			
DOORS AND WINDOWS			\$106,048			
FINISHES			\$98,264			
SPECIALTIES			\$17,557			
EQUIPMENT			\$26,093			
FURNISHINGS			\$1,019			
SPECIAL CONSTRUCTION			\$1,778,452			
CONVEYING			\$36,112			
MECHANICAL ELECTRICAL			\$843,959 \$740,400			
ELECTRICAL			\$749,490			

Fort Richardson State Fish Hatchery

Sportfish Division, ADF&G

Prepared for CH2M Hill by Estimations

Description	Qty	Unit	Estimated Cost	Totals	Estimated Cost with Genl Requirements Distributed	Estimated Cost Plus Contingencies
NEW BUILDING OVER EXISTING RACEWAYS	32,336	SF		\$1,398,951	\$1,616,802	\$1,991,752
CONCRETE	,		\$136,291	. , ,	. ,	. , ,
MASONRY						
METALS			\$4,076			
WOOD AND PLASTIC						
THERMAL & MOISTURE PROTECTION			\$8,328			
DOORS AND WINDOWS			\$76,094			
FINISHES SPECIALTIES						
EQUIPMENT						
FURNISHINGS						
SPECIAL CONSTRUCTION						
CONVEYING						
MECHANICAL			\$761,033			
ELECTRICAL			\$413,129			
NEW BUILDING OVER BROODSTOCK RACEWA	YS 10,905	SF		\$1,013,598	\$1,171,440	\$1,443,107
CONCRETE			\$78,466			
MASONRY			.			
METALS			\$1,375			
WOOD AND PLASTIC			#4.400			
THERMAL & MOISTURE PROTECTION			\$4,128			
DOORS AND WINDOWS FINISHES			\$62,353			
SPECIALTIES						
EQUIPMENT						
FURNISHINGS						
SPECIAL CONSTRUCTION						
CONVEYING						
MECHANICAL			\$678,915			
ELECTRICAL			\$188,361			
			, -,			

Description	Qty	U	nit		E	stimated Cost	Totals	Estimated Cost with Genl Requirements Distributed	Estimated Cost Plus Contingencies
EXISTING FACILITY RENOVATION & UPGRADE	S	1 L	_S				\$4,021,423	\$4,647,656	\$5,725,489
Water Aeration Building Well Field And Water Distribution System Shop Complex Water Filtration Building Visitor Center Incubator Building, Misc Repairs						\$2,117,391 \$1,802,329 \$67,691 \$34,012 \$269,306 \$10,000			
EQUIPMENT		1 L	_S				\$4,294,507	\$4,963,266	\$6,114,291
Hatchery Equipment						\$4,294,507	+ -, -, - -,-	¥ 1,000,000	+ 0, - 1 - 1, - 0 - 1
Subtotal:							\$18,889,616	\$18,889,616	\$23,270,283
Estimating Contingency:					15.0%		\$2,833,442		
Escalation For Inflation:	24 Mth	s	@	3.5%	7.1%		\$1,547,225		
Assumes a midpoint of 01/2007									
Total Estimated Construction Cost:							\$23,270,283		

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
	ENERAL REQUIREMENTS	12	MONTHS								
2	Project Management										
3	Project Manager - 8 Hrs/Week	54	WEEKS			8.000	432.0	\$30,240		\$30,240	\$30,240
4	Supervisor - 40 Hrs/Week	52	WEEKS			40.000	2,080.0	\$104,000		\$104,000	\$104,000
5	Quality Control - 40 Hrs/Week	52	WEEKS			40.000	2,080.0	\$76,440		\$76,440	\$76,440
6	Project Expeditor - 16 Hrs/Week	52	_			16.000	832.0	\$41,933		\$41,933	\$41,933
7	Time Keeper/Cost Control - 8 Hrs/Week	52	WEEKS			8.000	416.0	\$8,736		\$8,736	\$8,736
8											
9	Small Tools & Consumables	1	LS	\$58,380.00	\$58,380					\$58,380	\$58,380
10											
11	Equipment										
12	Pickup	52	WEEKS						\$12,133	\$12,133	\$12,133
13	Forklift	52	WEEKS						\$34,667	\$34,667	\$34,667
14	Flatbed	52	WEEKS						\$26,000	\$26,000	\$26,000
15	Craning	13	WEEKS						\$19,500	\$19,500	\$19,500
16	ManLifts (3 Ea)	39	WEEKS						\$14,625	\$14,625	\$14,625
17											
18	Surface Freight										
19	Seattle - Job Site	504	TONS	\$200.00	\$100,780	1.714	863.7	\$43,530		\$144,310	\$144,310
20											
21	Other Requirements										
22	Project Meetings	12	EA			4.000	48.0	\$1,764		\$1,764	\$1,764
23	Project Schedule										
24	CPM - Set Up	47,359	SF	\$0.15	\$7,104					\$7,104	\$7,104
25	Updates	11	MTHS	\$350.00	\$3,850					\$3,850	\$3,850
26	Project Layout	47,359	SF	\$0.05	\$2,368	0.007	331.5	\$16,708		\$19,076	\$19,076
27	Shop Drawings	30	HRS			1.000	30.0	\$1,103		\$1,103	\$1,103
28	Test Lab Services	20	EA	\$250.00	\$5,000					\$5,000	\$5,000
29											
30	Temporary Facilities	12	MTHS								
31	Project Office Trailer	12	MTHS						\$7,200	\$7,200	\$7,200
32	Office Equipment/Supplies	12	MTHS	\$500.00	\$6,000					\$6,000	\$6,000
33	Project Tool Sheds	12	MTHS	•					\$2,400	\$2,400	\$2,400
34	,								. ,	. ,	. ,
35	Project Safety Equipment	1	LS	\$14,600.00	\$14,600					\$14,600	\$14,600
	·1:	·	-	,,	Ţ:.,-3 0					Ţ · ·, - • •	¥ · ·,•

			Material C		Labor		Labor	Equip	Total	Total Cos
Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & F
Temporary Services										
Chemical Toilets (2 Ea @ 125)	12	MTHS	\$250.00	\$3,000					\$3,000	\$3,000
Power	12	MTHS	\$1,420.77	\$17,049					\$17,049	\$17,049
Lighting	47,359	SF	\$0.02	\$947	0.002	94.7	\$4,773		\$5,720	\$5,720
Lights, Site, Lite-tower (1 Ea)	4	MTHS	\$1,500.00	\$6,000		•	4 1,1 1 2		\$6,000	\$6,000
Water Use	12	MTHS	\$100.00	\$1,200					\$1,200	\$1,200
Heat Temporary	12	MTHS	\$1,500.00	\$18,000					\$18,000	\$18,000
			. ,	. ,					. ,	. ,
Cleaning										
Progressive	52	WKS	\$50.00	\$2,600	8.000	416.0	\$20,966		\$23,566	\$23,566
Final	47,359	SF	\$0.15	\$7,104					\$7,104	\$7,104
Windows	1,313	SF	\$0.25	\$328					\$328	\$328
Dumpsters	12	EA	\$460.00	\$5,520					\$5,520	\$5,520
Record Documents	1	LS	\$2,000.00	\$2,000					\$2,000	\$2,000
Operations and Maintenance Manuals	1	LS	\$500.00	\$500	24.000	24.0	\$882		\$1,382	\$1,382
Contract Closeout and Training	1	LS	\$2,500.00	\$2,500					\$2,500	\$2,500
Warranties and Bonds	1	LS	\$2,500.00	\$2,500					\$2,500	\$2,500
	·	0	ψ=,σσσ.σσ	ΨΞ,000					ΨΞ,000	Ψ_,σσ
General Contractor Overhead & Pro	8%									\$1,353,488
General Contractor Bond & Insuran	2.5%									\$456,802
Subtotal: GENERAL REQUIREMENTS	S: Cost ba	sed on 47,3	59 SF	\$267,330		7,647.9	\$351,075	\$116,525	\$734,930	\$2,545,22
Average Unit Price for this division is:										•
Average Labor Rate for this division: S	45.90 per	hour								

Construction Cost Estimate - Alternative II Conceptual Estimate November 3, 2004

Line				Material C	costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
71											
72	SITE PREPARATION, DEMOLITION	1	LS	\$1,000.00	\$1,000	142.857	142.9	\$7,202		\$8,202	\$8,202
73	DEMOLITION		LO	φ1,000.00	ψ1,000	142.007	142.0	Ψ1,202		ψ0,202	ψ0,202
74	Concrete Raceways, 56' x 188'	10,528	SF								
75	Pump Out, Drain Down Raceways	5,615	GAL			0.002	11.2	\$581	\$281	\$862	\$991
76	Cut Piping at Grade, Cap, Abandon	1	LS			8.000	8.0	\$415	•	\$415	\$477
77	Remove Above Gr Equip, Appurts	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
78	Remove Connecting Piping,	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
79	Electrical Demo Concrete, Slabs	195	CY	\$20.00	\$3,899	2.700	526.4	\$27,322	\$11,581	\$42,802	\$49,222
80	Demo Concrete, Walls	48	CY	\$20.00 \$20.00	\$3,699 \$969	4.000	193.8	\$10,059	\$3,633	\$42,602 \$14,661	\$49,222 \$16,860
81	Fill With NFS, Compact, Grade	1,716	CY	\$20.00 \$12.60	\$21,617	0.077	132.1	\$6,857	\$3,033 \$6,176	\$34,650	\$39,848
82	i iii witti Ni 3, Compact, Grade	1,710	O1	Ψ12.00	Ψ21,017	0.077	132.1	ψ0,037	ψ0,170	ψ54,050	ψ59,040
83	Concrete Raceways, 75' x 188'	14,100	SF								
84	Pump Out, Drain Down Raceways	7,520	GAL			0.002	15.0	\$779	\$376	\$1,155	\$1,328
85	Cut Piping at Grade, Cap, Abandon	1 ,020	LS			8.000	8.0	\$415	ψο. σ	\$415	\$477
86	Remove Above Gr Equip, Appurts	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
87	Remove Connecting Piping, Electrical	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
88	Demo Concrete, Slabs	261	CY	\$20.00	\$5,222	2.700	705.0	\$36,592	\$15,510	\$57,324	\$65,923
89	Demo Concrete, Walls	52		\$20.00	\$1,044	4.000	208.8	\$10,838	\$3,916	\$15,798	\$18,167
90	Fill With NFS, Compact, Grade	2,298		\$12.60	\$28,952	0.077	176.9	\$9,182	\$8,272	\$46,406	\$53,367
91	• •										
92											
93											
94											
95											
96											
97											
98											
99											
100											

_ine				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
105											
106	Broodstock Raceways, 113' x	10,905	SF								
100	96.5'	10,505	O.								
107	Pump Out, Drain Down Raceways	5,816	GAL			0.002	11.6	\$602	\$291	\$893	\$1,027
108	Cut Piping at Grade, Cap, Abandon	1	LS			8.000	8.0	\$415	•	\$415	\$477
109	Remove Above Gr Equip, Appurts	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
110	Remove Connecting Piping, Electrical	1	LS			24.000	24.0	\$1,246		\$1,246	\$1,433
111	Demo Concrete, Slabs	202	CY	\$20.00	\$4,039	2.700	545.2	\$28,298	\$11,995	\$44,332	\$50,982
112	Demo Concrete, Walls	42	CY	\$20.00	\$832	4.000	166.4	\$8,637	\$3,119	\$12,588	\$14,476
113	Fill With NFS, Compact, Grade	1,777	CY	\$12.60	\$22,391	0.077	136.8	\$7,100	\$6,397	\$35,888	\$41,272
114											
115	Broodstock Development Bldg	2,236	SF	\$3.36	\$7,513	0.100	223.6	\$11,606		\$19,119	\$21,987
116											
117	Operations Building	1,595	SF	\$3.36	\$5,359	0.100	159.5	\$8,279		\$13,638	\$15,684
118											
119	Soil Remediation	296	CY	\$90.00	\$26,667					\$26,667	\$30,667
120											
121											
122											
123											
124											
125											
126											
127 128											
129											
130											
131											
132											
133											
134											
135											
136	Subtotal: SITE PREPARATION, DEMO	OLITION:	Cost based o	on 47 359 SF	\$129,504		3,523.2	\$182,655	\$71,547	\$383,706	\$440,032
137	Average Unit Price for this division is:			JII 47,333 OI	Ψ125,504		0,020.2	Ψ102,000	Ψ11,0-11	φοσο, 1 σσ	ψ++0,032
138	Average Labor Rate for this division:										

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
400											
139	CITE DEVEL ORMENT		AODE								
140 (SITE DEVELOPMENT SITE PREPARATION	4	ACRE								
141	Clearing & Grubbing										
143	Clear & Grubbing Clear & Grub, Light	3.1	ACRE	\$3,500.00	\$10,718					\$10,718	\$12,326
144	Clear & Grub, Light	3.1	ACILL	ψ3,300.00	ψ10,710					\$10,710	Ψ12,320
145	Earthwork, Grading and Drainage										
146	General Earthwork										
147	Site Compaction	93,117	SF			0.009	838.1	\$43,501	\$46,559	\$90,060	\$103,568
148	Rough Grading	133,397	SF			0.003	400.2	\$20,772	\$8,004	\$28,776	\$33,092
149	rtough Chaumg	100,001	O.			0.000	100.2	Ψ20,112	φο,σσ ι	Ψ20,7.70	ψου,σο2
150	Building Earthwork										
151	Excavation For Bldg (20% Allowed	1,012	CY			0.020	20.2	\$1,048	\$2,428	\$3,476	\$3,997
	For Swell)	,-	-					+ ,	* , -	+-,	+ - ,
152	Foundation Excavation	1,543	CY			0.025	38.6	\$2,003	\$4,629	\$6,632	\$7,627
153	Haul Exc To Waste	2,555	CY			0.014	35.8	\$1,858	\$4,379	\$6,237	\$7,173
154	NFS Fill For Bldg (15% Allowed For	8,242	CY	\$5.00	\$41,210	0.091	750.0	\$38,928	\$31,320	\$111,458	\$128,176
	Comp.)										
155	Backfill Foundations	1,543	CY	\$5.00	\$7,715	0.091	140.4	\$7,287	\$5,863	\$20,865	\$23,995
156											
157	Site Earthwork										
158	NFS Fill - Parking, Roads & Walks	5,808	CY	\$5.00	\$29,040	0.091	528.5	\$27,431	\$22,070	\$78,541	\$90,323
159											
160											
161											
162											
163											
164											
165											
166											
167											
168											
169	O LA CALOUTE DEVELOPMENT		4= 0=0 0=		#00.00		0.754.0	# 440.000	Φ40E 0E 4	#050 700	A440.5==
70	Subtotal: SITE DEVELOPMENT: Cos				\$88,683		2,751.8	\$142,828	\$125,251	\$356,762	\$410,277
171	Average Unit Price for this division is:	•									
172	Average Labor Rate for this division:	\$51.90 per	nour								

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
470											
173	CITE IMPROVEMENTS										
174 175	SITE IMPROVEMENTS										
175	Paving and Surfacing Roadway Asphalt 2" W/4" Base	14,520	SY	\$14.00	\$203,280					\$203,280	\$233,772
177	Paint 4" Lines On Pavement	120	LF	\$0.45	\$203,260 \$54					\$203,260 \$54	\$233,772 \$62
178	HCP Parking Markings	4	EA	\$15.00	\$60	1.000	4.0	\$208		\$268	\$308
179	TIOI T arking markings	7	LA	ψ13.00	ΨΟΟ	1.000	4.0	Ψ200		Ψ200	Ψ300
180	Site Improvements										
181	New Signage	16	EA	\$175.00	\$2,800	1.500	24.0	\$1,246		\$4,046	\$4,653
182	Dumpster Pad - 6"	200	SF	\$4.95	\$990	0.059	11.8	\$612	\$150	\$1,752	\$2,015
183	Dampotor Faa O	200	O.	Ψ1.00	φοσσ	0.000	11.0	ΨΟ1Ζ	Ψ100	Ψ1,702	Ψ2,010
184	Bollards										
185	Bollard Bases	10	EA	\$40.60	\$406	1.500	15.0	\$779	\$350	\$1,535	\$1,765
186	Bollards - 6" Pipe	10	EA	\$122.50	\$1,225	1.000	10.0	\$519	****	\$1,744	\$2,006
187	23			*	¥ 1,==0			4-1-		4 - , - · · ·	v =,
188	Landscaping	1	LS	\$35,000.00	\$35,000					\$35,000	\$40,250
189	J. Company			•	,					. ,	
190											
191											
192											
193											
194											
195											
196											
197											
198											
199											
200											
201											
202											
203											
204											
205											
206	Subtotal: SITE IMPROVEMENTS: C			•	\$243,815		64.8	\$3,364	\$500	\$247,679	\$284,831
207	Average Unit Price for this division is	•									
208	Average Labor Rate for this division:	\$51.91 per	hour								

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
209											
210	SITE UTILITIES										
211	Sewer Piping	600	LF								
212	Trench Excavation W/Hyd. Exc.	1,200	CY			0.053	63.6	\$3,301	\$3,440	\$6,741	\$7,752
213	Backfill In Trenches	1,200	CY	\$14.00	\$16,800	0.053	63.6	\$3,301	\$3,440	\$23,541	\$27,072
214	Pipe Bedding	133	CY	\$19.80	\$2,640	0.050	6.7	\$348	\$433	\$3,421	\$3,935
215	DI Pipe 4" CL50	600	LF	\$6.50	\$3,900	0.200	120.0	\$6,228		\$10,128	\$11,647
216	DI Pipe 6" CL50	600	LF	\$8.50	\$5,100	0.200	120.0	\$6,228		\$11,328	\$13,027
217	Heat Trace	600	LF	\$8.00	\$4,800	0.057	34.2	\$1,857		\$6,657	\$8,321
218	Cleanout	1	EA	\$700.00	\$700	8.000	8.0	\$415	\$65	\$1,180	\$1,357
219	Pressure Testing	600	LF			0.030	18.0	\$934		\$934	\$1,074
220											
221	Water Service - Domestic	1,244	LF								
222	Shallow Bury - Arctic Pipe To Avoid										
	Conflicts										
223	Trench Excavation W/Hyd. Exc.	737	CY			0.053	39.1	\$2,029	\$2,113	\$4,142	\$4,764
224	Backfill In Trenches	737	CY	\$14.00	\$10,321	0.053	39.1	\$2,029	\$2,113	\$14,463	\$16,633
225	Pipe Bedding	276	CY	\$19.80	\$5,474	0.050	13.8	\$716	\$898	\$7,088	\$8,152
226	Arctic Pipe, 3" Carrier	307	LF	\$18.00	\$5,526	0.314	96.4	\$5,004		\$10,530	\$12,110
227	Arctic Pipe, 2" Carrier	363	LF	\$18.00	\$6,534	0.314	114.0	\$5,917		\$12,451	\$14,319
228	Arctic Pipe, 1.5" Carrier	574	LF	\$18.00	\$10,332	0.314	180.2	\$9,353		\$19,685	\$22,638
229	Pressure Testing	1,244	LF	•	. ,	0.030	37.3	\$1,936		\$1,936	\$2,226
230	3	,						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, , , , , , , ,	* , -
231	Gas Main	1,200	LF	\$35.00	\$42,000					\$42,000	\$48,300
232		-,		*******	4 1, 5 5 5					¥ :=,=	¥ 12,000
233	Gas Service Line	100	LF	\$25.00	\$2,500					\$2,500	\$2,875
234	545 55. 1155 <u>I</u> 5			+ =====	- ,					+ =,	+ =,
235	Electrical Services										
236	Electrical Service	1	LS	\$20,000.00	\$20,000					\$20,000	\$25,000
237	New Feed	600	LF	\$25.00	\$15,000					\$15,000	\$18,750
238	110W 1 000	000		Ψ20.00	Ψ10,000					φ10,000	Ψ10,700
239											
240											
241	Subtotal: SITE UTILITIES: Cost based	d on 47 25	0 SE		\$151,627		954.0	\$49,596	\$12,503	\$213,726	\$249,952
241	Average Unit Price for this division is:	•			φ131,021		904.0	Ф 4 9,596	φ12,503	φ213,120	\$249,932
242 243											
243	Average Labor Rate for this division: \$	o i.99 per	nour								

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
244											
245	NEW HATCHERY BUILDING	47,359	SF								
246	CONCRETE										
247	Footings - Perimeter Footing 24"x1:	875	LF								
248	Forms	1,458	SF	\$0.85	\$1,240	0.100	145.8	\$7,494		\$8,734	\$8,734
249	Re-steel	5,818	LBS	\$0.43	\$2,502	0.027	157.1	\$8,075		\$10,577	\$10,577
250	Concrete, 3000 PSI, Pumped Placement	57	CY	\$100.00	\$5,671	1.286	72.9	\$3,747	\$1,134	\$10,552	\$10,552
251											
252	Footings - Interior Footing 36"x12"	244	LF								
253	Forms	406	SF	\$0.85	\$345	0.100	40.6	\$2,087		\$2,432	\$2,432
254	Re-steel	1,619	LBS	\$0.43	\$696	0.027	43.7	\$2,246		\$2,942	\$2,942
255	Concrete, 3000 PSI, Pumped Placement	16	CY	\$100.00	\$1,578	1.286	20.3	\$1,043	\$316	\$2,937	\$2,937
256											
257	Footings - Columns 5'0"x5'0", Avg.	103	EA								
258	Forms	3,081	SF	\$1.06	\$3,266	0.125	385.2	\$19,800		\$23,066	\$23,066
259	Re-steel	21,940	LBS	\$0.43	\$9,434	0.027	592.4	\$30,450		\$39,884	\$39,884
260	Concrete, 3000 PSI, Pumped Placement	150	CY	\$100.00	\$14,979	1.286	192.6	\$9,900	\$2,996	\$27,875	\$27,875
261											
262	Foundation Walls 4'	875	LF								
263	Forms	7,000	SF	\$0.85	\$5,950	0.100	700.0	\$35,980		\$41,930	\$41,930
264	Re-steel	21,000	LBS	\$0.43	\$9,030	0.027	567.0	\$29,144		\$38,174	\$38,174
265	Concrete, 3000 PSI, Pumped Placement	91	CY	\$100.00	\$9,119	1.286	117.3	\$6,029	\$1,824	\$16,972	\$16,972
266											
267	Interior Walls 4'H Above Slab	244	LF								
268	Forms	2,435	SF	\$0.85	\$2,070	0.100	243.5	\$12,516		\$14,586	\$14,586
269	Re-steel	2,379	LBS	\$0.43	\$1,023	0.027	64.2	\$3,300		\$4,323	\$4,323
270	Concrete, 3000 PSI, Pumped Placement	32	CY	\$100.00	\$3,172	1.286	40.8	\$2,097	\$634	\$5,903	\$5,903
271											
272											
273											
274											

Line				Material C		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
275											
276	Slab On Grade 6"	32,336	SF								
277	Resteel, #4@12"o.c. e.w.	48,375	LBS	\$0.43	\$20,801	0.027	1,306.1	\$67,134		\$87,935	\$87,935
278	Concrete, 3500 PSI, Pumped Placement	629	CY	\$100.00	\$62,876	1.575	990.3	\$50,902	\$12,575	\$126,353	\$126,353
279	Finish - Subcontract	32,336	SF	\$0.70	\$22,635					\$22,635	\$22,635
280	Control Joints	3,234	LF	\$0.50	\$1,617	0.040	129.3	\$6,646		\$8,263	\$8,263
281	Cure	32,336	SF	\$0.02	\$647	0.002	64.7	\$3,326		\$3,973	\$3,973
282											
283	Trench Drain System	50	LF								
284	#3 Epoxy Dowels, 2 Ea @ 18" O.C.	69	EA	\$5.00	\$343	0.250	17.2	\$884		\$1,227	\$1,227
285	Forms - Cast Against Exc Fill										
286	Concrete	3.06	CY	\$100.00	\$306	3.214	9.8	\$504		\$810	\$810
287	Resteel	174	LBS	\$0.50	\$87	0.029	5.0	\$257		\$344	\$344
288	Polydrain Channel System	50	LF	\$45.00	\$2,250	0.357	17.9	\$920		\$3,170	\$3,170
289	W/Integrated Catch Basin and										
290											
291											
292											
293											
294											
295											
296											
297 298											
298 299											
300	Subtotal: CONCRETE: Cost based o	n 47 250 C	-		\$181,637		5,923.7	\$304,481	\$19,479	\$505,597	\$505,597
300	Average Unit Price for this division is:				φ101,03 <i>1</i>		5,925.7	Ф304,40 I	Ф19,479	φ505,597	\$505,59 <i>1</i>
302	Average Labor Rate for this division:										
303	Average Labor Kate for this division.	351.40 рег	Tioui								
304	MASONRY										
305	Not Used										
306	Not oscu										
307	Subtotal: MASONRY: Cost based on	47.359 SF	:								
308	Average Unit Price for this division is:										
309	Average Labor Rate for this division:										
509	Average Labor Mate for this division.	voloo hei i	ioui								

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
040											
310 311	METALO										
311	METALS Miscellaneous Metals										
313	Metal Stairs	2	EA	\$2,500.00	\$5,000	40.000	80.0	\$4,408		\$9,408	\$11,290
314	Misc Metals	47,359	SF	\$2,500.00	\$2,368	0.001	47.4	\$4,406 \$2,612		\$4,980	\$5,976
315	Handrails	47,339	LF	\$11.00	\$2,300 \$176	0.001	1.8	\$99		\$275	\$3,970
316	Guardrails/Handrails	24	LF	\$45.00	\$1,080	0.114	4.8	\$264		\$1,344	\$1,613
317	Guardrails - Safety Rail, Industrial	244	LF	\$45.00 \$16.50	\$4,018	0.200	27.8	\$1,532		\$5,550	\$6,660
318	Guardians - Garety Itali, industrial	277	L1	Ψ10.50	Ψ+,010	0.114	21.0	Ψ1,002		ψ5,550	ψ0,000
319											
320											
321											
322											
323											
324											
325											
326											
327											
328											
329	Subtotal: METALS: Cost based on 4	17.359 SF			\$12,642		161.8	\$8,915		\$21,557	\$25,869
330	Average Unit Price for this division is		SF		. ,			. ,		. ,	, ,,,,,,
331	Average Labor Rate for this division:										
332											
333	WOOD AND PLASTIC										
334	Rough Carpentry	1	LS	\$5,000.00	\$5,000					\$5,000	\$5,000
335	. ,										
336											
337											
338											
339											
340											
341											
342											
343	Subtotal: WOOD AND PLASTIC: Co	st based or	n 47,359 SF		\$5,000					\$5,000	\$5,000
344	Average Unit Price for this division is										
345	Average Labor Rate for this division:										
		· · · · · · · · · · · · · · · · · · ·									

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
346											
347	THERMAL & MOISTURE PROTECTION										
348	Dampproofing										
349	Bituminous Dampproofing	3,500	SF	\$0.40	\$1,400	0.019	66.5	\$3,570		\$4,970	\$5,964
350	Bitaminous Bampprooling	0,000	Oi	ψ0.+0	Ψ1,400	0.010	00.0	φο,στο		Ψ+,570	ψ0,504
351	Waterproofing										
352	Membrane Waterproofing, Self	1,218	SF	\$0.60	\$731	0.019	23.1	\$1,240		\$1,971	\$2,365
	Adhering	.,		7	* 1.5.			4 1,= 10		+ - ,	- -,
353	S										
354	Vapor Retarders										
355	Vapor Retarder, 10 Mil (Underslab)	47,359	SF	\$0.12	\$5,683	0.002	94.7	\$4,868		\$10,551	\$10,551
356											
357	Building Insulation										
358	2" Rigid at Foundations	4,375	SF	\$1.00	\$4,375	0.007	30.6	\$1,459		\$5,834	\$6,709
359	Sound Insulation	1,614	SF	\$0.35	\$565	0.003	4.8	\$229		\$794	\$913
360											
361	Flashing & Sheet Metal										
362	Base Flashing	875	LF	\$2.00	\$1,750	0.040	35.0	\$1,879		\$3,629	\$4,355
363	Misc Flashings	438	LF	\$2.00	\$875	0.040	17.5	\$940		\$1,815	\$2,178
364											
365	Joint Sealants	47,359	SF	\$0.04	\$1,894	0.001	47.4	\$2,436		\$4,330	\$4,330
366											
367											
368											
369 370											
371											
371											
373											
374											
375											
376											
377											
378	Subtotal: THERMAL & MOISTURE PR	ROTECTIO	N: Cost bas	ed on 47.359 S	\$17,273		319.6	\$16,621		\$33,894	\$37,365
379	Average Unit Price for this division is:				, ,			,		,	Ţ, ~~
380	Average Labor Rate for this division:										
		1	-								

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
201											
381 382	DOODS AND WINDOWS										
383	DOORS AND WINDOWS										
	Steel Doors & Frames	4	EA	#200.00	#4.000	2.000	40.0	C47		#4.047	64.047
384	HM Insulated 3'0"x7'0"	4	PR	\$300.00	\$1,200 \$2,000	3.000	12.0	\$617		\$1,817	\$1,817
385	HM Insulated 3'0"x7'0" PR	6		\$600.00	\$3,600	5.000	30.0	\$1,542		\$5,142	\$5,142
386	Insul. HM Frame	10	EA	\$170.00	\$1,700	2.000	20.0	\$1,028		\$2,728	\$2,728
387	HM Door, 3'0"x7'0"	2	EA	\$300.00	\$600	3.000	6.0	\$308		\$908	\$908
388	HM Door, PR 3'0"x7'0"	3	PR	\$600.00	\$1,800	5.000	15.0	\$771		\$2,571	\$2,571
389	HM Frames	5	EA	\$125.00	\$625	1.000	5.0	\$257		\$882	\$882
390	Add For Vision Lites	24	EA	\$85.00	\$2,040					\$2,040	\$2,040
391											
392	Overhead Doors										
393	Insulated Metal Overhead Door,	4	EA	\$3,360.00	\$13,440	12.000	48.0	\$2,289		\$15,729	\$18,088
	12'0"x14'0"										
394	Motor Operators	4	EA	\$500.00	\$2,000					\$2,000	\$2,300
395											
396	Windows										
397	Alum Storefront Windows	1,313	SF	\$38.00	\$49,875	0.143	187.7	\$9,648		\$59,523	\$59,523
398											
399	Finish Hardware										
400	Int Hardware Sets	5	EA	\$450.00	\$2,250	1.000	5.0	\$257		\$2,507	\$2,507
401	Ext Hardware Set	10	EA	\$600.00	\$6,000	3.000	30.0	\$1,542		\$7,542	\$7,542
402				,	* - ,			¥ ,-		+ /-	+ ,-
403											
404											
405											
406											
407											
408											
409											
410											
411											
411											
	Outstately DOODS AND WINDOWS	04	1 47 050 0	-	COE 400		250.7	#40.050		£400.000	£400.040
413	Subtotal: DOORS AND WINDOWS:			F	\$85,130		358.7	\$18,259		\$103,389	\$106,048
414	Average Unit Price for this division is	•									
415	Average Labor Rate for this division:	\$50.90 per	hour								

Line				Material C		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
416											
417	FINISHES										
418	09100 - Metal Support Systems										
419	Metal Framing 6" 20 Ga 16" o.c.	3,228	SF	\$0.60	\$1,937	0.020	64.6	\$3,081		\$5,018	\$5,771
420	Wotai Framing 0 20 Ga 10 0.0.	0,220	O.	ψ0.00	Ψ1,007	0.020	01.0	φο,σσ1		φο,ο το	φο,ττι
421	09250 - Gypsum Board										
422	GWB 5/8" Walls	6,456	SF	\$0.30	\$1,937	0.019	122.7	\$5,852		\$7,789	\$8,957
423	Tape & Finish	6,456	SF	\$0.03	\$194	0.010	64.6	\$3,081		\$3,275	\$3,766
424	Suspended GWB Ceilings	2,070	SF	\$1.40	\$2,898	0.057	118.0	\$5,628		\$8,526	\$9,805
425	3.	,		•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			* - , -		+ - , -	* - ,
426	09650 - Resilient Flooring										
427	Sheet Vinyl Flooring	120	SF	\$2.00	\$240	0.029	3.5	\$171		\$411	\$493
428	, ,										
429	09900 - Painting										
430	Paint	19,854	SF	\$0.08	\$1,588	0.020	397.1	\$18,939		\$20,527	\$23,606
431	Concrete Sealers	47,239	SF	\$0.20	\$9,448	0.013	614.1	\$29,288		\$38,736	\$44,546
432	Paint Doors & Frames	15	EA	\$5.00	\$75	1.500	22.5	\$1,073		\$1,148	\$1,320
433											
434											
435											
436											
437											
438											
439											
440											
441											
442											
443											
444											
445											
446											
447											
448											
449	Subtotal: FINISHES: Cost based or				\$18,317		1,407.1	\$67,113		\$85,430	\$98,264
450	Average Unit Price for this division is										
451	Average Labor Rate for this division	: \$47.70 per	hour								

Line				Material C		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
452											
453	SPECIALTIES										
454	Toilet Compartments										
455	Standard Compartments	4	EA	\$800.00	\$3,200	3.000	12.0	\$572		\$3,772	\$4,338
456	H.C. Compartments	2	EA	\$900.00	\$1,800	3.000	6.0	\$286		\$2,086	\$2,399
457		_	_, ,	ψοσοίσο	ψ.,σσσ	0.000	0.0	Ψ=00		4 2,000	Ψ=,σσσ
458	Impact Resistant Wall Protection										
459	Wall Panels (FRP)	768	SF	\$3.00	\$2,304	0.029	22.3	\$1,146		\$3,450	\$3,450
460	Corner Protectors	2	EA	\$45.00	\$90	0.500	1.0	\$48		\$138	\$159
461				•	•			•		•	,
462	Exterior Signs	1	LS	\$2,500.00	\$2,500					\$2,500	\$2,875
463	3			. ,	. ,					. ,	. ,
464	Interior Architectural Signage										
465	Room Signage	5	EA	\$20.00	\$100	0.250	1.3	\$62		\$162	\$186
466											
467	Fire Protection Specialties										
468	FEC	10	EA	\$175.00	\$1,750	1.000	10.0	\$477		\$2,227	\$2,561
469											
470	Toilet & Bath Accessories										
471	Small Toilet Room Sets	2	EA	\$500.00	\$1,000	4.000	8.0	\$382		\$1,382	\$1,589
472											
473											
474											
475											
476											
477											
478											
479											
480											
481											
482											
483											
484	_										
485	Subtotal: SPECIALTIES: Cost based				\$12,744		60.6	\$2,973		\$15,717	\$17,557
486	Average Unit Price for this division is:										
487	Average Labor Rate for this division:	\$49.06 per	hour								

Line				Material C		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
488											
489	EQUIPMENT										
490	Hatchery Estimated Separately Below	v									
491	riationary Estimated Separatery Belov	•									
492	Loading Dock Equipment										
493	Dock Bumpers, Rubber 6X12X36	4	EA	\$110.00	\$440	1.000	4.0	\$191		\$631	\$726
494	Dock Leveler	2	EA	\$8,000.00	\$16,000	40.000	80.0	\$3,815		\$19,815	\$22,787
495	Dock Seals	2	EA	\$540.00	\$1,080	6.000	12.0	\$572		\$1,652	\$1,900
496	Dock Lights	2	EA	\$200.00	\$400	2.000	4.0	\$191		\$591	\$680
497	•										
498											
499											
500											
501											
502											
503											
504											
505	Subtotal: EQUIPMENT: Cost based of				\$17,920		100.0	\$4,769		\$22,689	\$26,093
506	Average Unit Price for this division is:										
507	Average Labor Rate for this division:	647.69 per	hour								
508											
509	FURNISHINGS			^							
510	Floor Mats	32	SF	\$25.00	\$800	0.057	1.8	\$86		\$886	\$1,019
511											
512	Furniture and Accessories - Not Inclu	ided in Th	e Estimate								
513											
514											
515											
516											
517 518											
519											
520											
	Outstately FURNICUINGS Coat has a	l 47.05	0.05		\$000		4.0			#000	£4.040
521 522	Subtotal: FURNISHINGS: Cost based Average Unit Price for this division is:				\$800		1.8	\$86		\$886	\$1,019
523	Average Unit Price for this division is: Average Labor Rate for this division: \$										
525	Average Labor Rate for this division: \$	941.10 per	noui								

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
524											
525	SPECIAL CONSTRUCTION										
526	Pre Engineered Metal Building	47,359	SF								
527	Pre Engineered Metal Building, Frame	47,359	SF	\$7.60	\$359,928	0.080	3,788.7	\$208,754	\$37,887	\$606,569	\$727,883
528	Metal Insulated Siding Panels 4"	18,886	SF	\$5.50	\$103,875	0.080	1,510.9	\$83,249	\$14,165	\$201,289	\$241,547
529	Metal Insulated Roofing Panels	47,962	SF	\$6.50	\$311,754	0.080	3,837.0	\$211,415	\$35,972	\$559,141	\$670,969
530	General Requirements & Supervision	15	WEEKS	\$750.00	\$11,421	60.000	913.7	\$50,344		\$61,765	\$74,118
531	Add For Galv	47,359	SF	\$1.35	\$63,935					\$63,935	\$63,935
532											
533											
534											
535											
536											
537											
538											
539	Subtotal: SPECIAL CONSTRUCTION:	Cost bas	sed on 47.35	9 SF	\$850,913		10,050.3	\$553,762	\$88,024	\$1,492,699	\$1,778,452
540	Average Unit Price for this division is:			· ·	ψοσο,σ.σ		. 0,000.0	4000,: 02	Ψοσ,σ= .	ψ.,.o <u>=</u> ,σσσ	V ., O , O _
541	Average Labor Rate for this division: \$										
542		. сс. то ро									
543	CONVEYING										
544	Overhead Bridge Crane										
545	5 Ton Crane, 20' Pick, 20' Span	1	EA	\$19,895.00	\$19,895	48.000	48.0	\$2,289		\$22,184	\$25,512
546	Crane Rail - Allow 104 Lb Per Yard	5,547	LBS	\$0.52	\$2,884	0.006	33.3	\$1,588	\$277	\$4,749	\$5,462
547	Box Beam Bridge	3,000	LBS	\$0.98	\$2,940	0.009	27.0	\$1,288	\$240	\$4,468	\$5,138
548	Box Boain Bhago	0,000	LDO	ψ0.00	Ψ2,010	0.000	21.0	Ψ1,200	Ψ2 10	ψ1,100	ψο, 100
549											
550											
551											
552											
553											
554											
	Subtatal CONVEYING Cost based a	- 47 2FO (OF		¢25 710		108.3	\$5,165	\$517	¢24_404	£2C 442
555 556	Subtotal: CONVEYING: Cost based o				\$25,719		108.3	фЭ, 105	φ517	\$31,401	\$36,112
ეეე	Average Unit Price for this division is:	φυ./oper	or .								
557	Average Labor Rate for this division: \$. 47 00	h a								

No. Description City UNITS Unit Total Units Totals Cost Cost Cost W OH & P	Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
	No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost		Cost	w/ OH & P
560 15010 General Conditions State Sta												
561 Submittals 40 HRS \$5.00 \$220 1.000 40.0 \$1,470 \$1,670 \$1,670 562 Shop Drawings 40 HRS \$10.00 \$400 1.000 40.0 \$1,470 \$1,870 \$1,870 563 Record Drawings 40 HRS \$5.00 \$200 1.000 40.0 \$1,470 \$1,870 \$1,870 566 Oz & M Manuals 24 HRS \$5.00 \$20 1.000 8.0 \$294 \$334 \$345 \$366 \$60 \$11,60 \$1,600 \$1,000 \$60,00 \$1,101 \$1,11 \$1,11 \$1,11 \$1,11 \$1,11 \$1,11												
562 Shop Drawings 40 HRS \$10.00 \$400 1.000 40.0 \$1,470 \$1,870 \$1,870 563 Record Drawings 40 HRS \$5.00 \$200 1.000 40.0 \$1,470 \$1,670 \$1,670 564 Operating Instructions 8 HRS \$5.00 \$20 1.000 24.0 \$882 \$1,002 \$1,002 566 O & M Manuals 24 HRS \$5.00 \$120 1.000 24.0 \$882 \$1,002 \$1,002 567 Mob & Demob 1 LS \$2,000.00 \$2,000 64.00 64.0 \$3,226 \$5,226 \$5,226 568 Tests, Inspections 1 LS \$1,000.00 \$100 28.77 28.6 \$1,441 \$1,541 \$1,541 569 Supervision 28 WEEKS 20.000 \$50.0 \$2,800 \$1,750 \$29,750 \$29,750 \$29,750 \$29,750 \$29,750 \$29,750 \$2,800 \$1									.		.	.
563 Record Drawings 40 HRS \$5.00 \$200 1.000 40.0 \$1,470 \$1,670 \$1,670 564 Operating Instructions 8 HRS \$5.00 \$40 1.000 8.0 \$294 \$334 \$334 565 O & M Manuals 24 HRS \$5.00 \$120 1.000 24.0 \$882 \$1,002 \$1,002 566 Tools and Demob 1 LS \$2,000.00 \$2,000 64.00 64.00 \$3,226 \$5,226 \$5,226 568 Tests, Inspections 1 LS \$100.00 \$100 28.571 28.6 \$1,441 \$1,541					·							
564 Operating Instructions 8 HRS \$5.00 \$40 1.00 8.0 \$294 \$334 \$334 565 O & M Manuals 24 HRS \$5.00 \$120 1.000 24.0 \$882 \$1,002 \$1,002 566 Mob & Demob 1 LS \$2,000.00 \$2,000 64.00 64.00 \$3,226 \$5,226 \$1,682 \$2,033 <td< td=""><td></td><td></td><td></td><td></td><td>·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>					·							
565 O & M Manuals 24 HRS \$5.00 \$120 1.000 24.0 \$882 \$1,002 \$1,002 566 Mob & Demob 1 LS \$2,000.00 \$2,000 64.00 64.0 \$3,226 \$5,226 \$5,226 568 Tests, Inspections 1 LS \$100.00 \$100 28.571 28.6 \$1,441 \$1,541 \$1,541 569 Supervision 28 WEEKS 20,000 560.0 \$28,000 \$1,750 \$29,750 570 Materials Control 28 WEEKS 20,000 560.0 \$11,760 \$1,925 \$13,685 571 Temporary Connections 1 LS \$1,000.00 \$1,000 40.00 40.00 \$2,016 \$3,108 \$3,016 \$3,016 572 Bond and Insurance (1%) 1 LS \$8,400.00 \$8,400 \$3,400 \$3,400 \$3,400 \$3,400 \$3,400 \$3,400 \$3,400 \$3,400 \$3,400 \$3,400 \$3,400					·							
Second S			_									
Sef		O & M Manuals	24	HRS	\$5.00	\$120	1.000	24.0	\$882		\$1,002	\$1,002
Tests, Inspections												
Supervision 28 WEEKS 20.000 560.00 \$28,000 \$1,750 \$29,750 \$29,750 \$50.00 \$10.000 \$10.000 \$60.00 \$11,760 \$13,685 \$1			1									
570 Materials Control 28 WEEKS 20.000 560.0 \$11,760 \$1,925 \$13,685 \$13,685 571 Temporary Connections 1 LS \$1,000.00 \$1,000 40.00 40.00 \$2,016 \$3,016 \$3,016 \$3,016 \$3,016 \$3,400 \$8,400 \$70 \$8,400 \$1 LS \$8,400.00 \$8,400 \$8,400 \$3,400					\$100.00	\$100						
571 Temporary Connections 1 LS \$1,000.00 \$1,000 40.00 \$2,016 \$3,016 \$3,016 572 Bond and Insurance (1%) 1 LS \$8,400.00 \$8,400 \$8,400 \$8,400 573 Tools and Equipment (1% of Labor) 1 LS \$8,400.00 \$8,400 \$3,400 <td></td> <td>•</td> <td></td>		•										
572 Bond and Insurance (1%) 1 LS \$8,400.00 \$8,400 \$8,400 \$3,400			28							\$1,925		
\$3,400 \$3	571	Temporary Connections	1		\$1,000.00	\$1,000	40.000	40.0	\$2,016		\$3,016	\$3,016
Labor) 574 575 15260 Piping Insulation 576 Fiberglass Pipe Insulation, 1" Thick W/ASJ 577 Domestic Hot/Cold Water 578 3/4" Pipe, Fittings 185 LF \$1.50 \$278 0.070 13.0 \$685 \$963 \$1,252 579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194		Bond and Insurance (1%)	1		\$8,400.00	\$8,400					\$8,400	\$8,400
574 575 576 Fiberglass Pipe Insulation, 1" Thick W//ASJ 577 Domestic Hot/Cold Water 578 3/4" Pipe, Fittings 150 LF \$1.50 \$278 0.070 13.0 \$685 \$963 \$1,252 579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4"-1/2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4"-1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$890 \$1,186 \$1,514 \$1,514 \$1,524 \$2,53 \$481 0.089 16.9 \$890 \$1,069 \$1,888 \$2,194 590 6" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$3.99 0.133 13.3 \$700 \$1,099 \$1,429	573	Tools and Equipment (1% of	1	LS						\$3,400	\$3,400	\$3,400
575 I5260 Piping Insulation 576 Fiberglass Pipe Insulation, 1" Thick W/ASJ 577 Domestic Hot/Cold Water 578 3/4" Pipe, Fittings 185 LF \$1.50 \$278 0.070 13.0 \$685 \$963 \$1,252 579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800		Labor)										
Fiberglass Pipe Insulation, 1" Thick W/ASJ 577 Domestic Hot/Cold Water 578 3/4" Pipe, Fittings 185 LF \$1.50 \$278 0.070 13.0 \$685 \$963 \$1,252 \$79 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 \$800 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 \$81 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 \$82 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 \$84 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 \$1.1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 \$86 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 \$87 \$2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 \$890 \$4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 \$90 6" Pipe, Fittings 190 LF \$3.29 \$3.99 0.133 13.3 \$700 \$1,099 \$1,429 \$1,090 \$1,099 \$1,429	574											
W/ASJ 577 Domestic Hot/Cold Water 578 3/4" Pipe, Fittings 185 LF \$1.50 \$278 0.070 13.0 \$685 \$963 \$1,252 579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic Triange 150 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758	575	15260 Piping Insulation										
577 Domestic Hot/Cold Water 578 3/4" Pipe, Fittings 185 LF \$1.50 \$278 0.070 13.0 \$685 \$963 \$1,252 579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,36 <td>576</td> <td>Fiberglass Pipe Insulation, 1" Thick</td> <td></td>	576	Fiberglass Pipe Insulation, 1" Thick										
578 3/4" Pipe, Fittings 185 LF \$1.50 \$278 0.070 13.0 \$685 \$963 \$1,252 579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587		W/ASJ										
579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,371 \$1,782 587	577	Domestic Hot/Cold Water										
579 1" Pipe, Fittings 150 LF \$1.53 \$230 0.073 11.0 \$579 \$809 \$1,052 580 1-1/4" - 1/2" Pipe, Fittings 150 LF \$1.86 \$279 0.076 11.4 \$600 \$879 \$1,143 581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic *** 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,371 \$1,782	578	3/4" Pipe, Fittings	185	LF	\$1.50	\$278	0.070	13.0	\$685		\$963	\$1,252
581 2" Pipe, Fittings 150 LF \$2.03 \$305 0.080 12.0 \$632 \$937 \$1,218 582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429	579	1" Pipe, Fittings	150	LF	\$1.53	\$230	0.073	11.0	\$579		\$809	\$1,052
582 Hydronic 583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429	580	1-1/4" - 1/2" Pipe, Fittings	150	LF	\$1.86	\$279	0.076	11.4	\$600		\$879	\$1,143
583 3/4" Pipe, Fittings 300 LF \$1.50 \$450 0.070 21.0 \$1,106 \$1,556 \$2,023 584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429	581	2" Pipe, Fittings	150	LF	\$2.03	\$305	0.080	12.0	\$632		\$937	\$1,218
584 1" Pipe, Fittings 190 LF \$1.53 \$291 0.073 13.9 \$732 \$1,023 \$1,330 585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429	582	Hydronic										
585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429	583	3/4" Pipe, Fittings	300	LF	\$1.50	\$450	0.070	21.0	\$1,106		\$1,556	\$2,023
585 1-1/4" - 1-1/2" Pipe, Fittings 190 LF \$1.86 \$353 0.076 14.4 \$758 \$1,111 \$1,444 586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429	584	1" Pipe, Fittings	190	LF	\$1.53	\$291	0.073	13.9	\$732		\$1,023	\$1,330
586 2" Pipe, Fittings 190 LF \$2.03 \$386 0.080 15.2 \$800 \$1,186 \$1,542 587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429				LF								
587 2-1/2" - 3" Pipe, Fittings 190 LF \$2.53 \$481 0.089 16.9 \$890 \$1,371 \$1,782 588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429		• • •		LF		\$386			\$800			
588 Sched 40 Blk Steel 589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429				LF	·	-						
589 4" Pipe, Fittings 190 LF \$3.26 \$619 0.107 20.3 \$1,069 \$1,688 \$2,194 590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429					, ,,	*			+		+ ,	÷ , -—
590 6" Pipe, Fittings 100 LF \$3.99 \$399 0.133 13.3 \$700 \$1,099 \$1,429			190	LF	\$3.26	\$619	0.107	20.3	\$1.069		\$1.688	\$2.194
		- · · · · · · · · · · · · · · · · · · ·			ψο.σσ	4000	200		ψ. 55		÷ .,550	÷ · , · — •

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
500											
592 593	Finishes: Aluminum Covering,	400	SF	\$0.33	\$132	0.080	32.0	\$1,685		\$1,817	\$2,362
393	.010"	400	OI .	ψ0.55	Ψ132	0.000	32.0	φ1,003		Ψ1,017	Ψ2,302
594	Insulated Protectors, ADA, Lav P-	4	EA	\$16.80	\$67	0.250	1.0	\$53		\$120	\$156
	traps			•	* -			• • •		, .	•
595	VTR	2	EA	\$20.00	\$40	1.400	2.8	\$147		\$187	\$243
596											
597	15280 Equipment Insulation										
598	Glass Fiber, Flexible			^	^- .						^-
599	HX, Air Separators, Exp Tanks: 1-	200	SF	\$0.37	\$74	0.050	10.0	\$527		\$601	\$781
600	1/2" Thk										
601	15290 Ductwork Insulation										
602	Glass Fiber, Flexible Ductwrap, .75										
	Lb, FSK										
603	1" Thick (Typ For E/A Ducts,	200	SF	\$0.32	\$64	0.046	9.2	\$484		\$548	\$712
	Round)										
604											
605	Glass Fiber, Fire Resistant Liner, 1-										
000	1/2 Lb	40.400	05	00.40	ΦE 740	0.040	F74.0	# 00.400		005.007	040.575
606	1" Thick (Typ For S/A Ducts,	12,430	SF	\$0.46	\$5,718	0.046	571.8	\$30,109		\$35,827	\$46,575
607	Round)										
608	Glass Fiber, Rigid, W/FRK										
	(Ductboard)										
609	2" Thick (Typ For O/A Ducts,	200	SF	\$2.36	\$472	0.123	24.6	\$1,295		\$1,767	\$2,297
0.4.0	Rect)	000	0.5	A 0.00	0004	0.404	00.0	** ***		#0.04	Φο οοο
610	4" Thick (Typ For Very Cold O/A	200	SF	\$3.02	\$604	0.134	26.8	\$1,411		\$2,015	\$2,620
611	Ducts, Rect)										
612	Finishes: Glass Cloth, Pasted On	400	SF	\$2.33	\$932	0.094	37.6	\$1,980		\$2,912	\$3,786
613	Timorico. Ciado Cictii, Tactea Cii	100	O.	Ψ2.00	Ψ002	0.001	07.0	Ψ1,000		Ψ2,012	ψο,7 σσ
614											
615											
616											
617											

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
0.4.0											
618											
619	15330 Fire Protection Systems							^			
620	Wet Pipe Sprinkler Riser	1	EA	\$2,500.00	\$2,500	48.000	48.0	\$2,450		\$4,950	\$6,188
621	Dry Pipe Sprinkler Riser	1	EA	\$4,000.00	\$4,000	48.000	48.0	\$2,450		\$6,450	\$8,063
622	Ord. Hazard Wet Pipe Sprinkler	17,336	SF	\$0.80	\$13,869	0.038	658.8	\$33,632		\$47,501	\$59,376
coo	System	45.000	C.F.	ሶ ስ ስስ	#42.200	0.040	C20.0	#20.400		#45.000	¢ EC 7 00
623	Ord. Hazard Dry Pipe Sprinkler System	15,000	SF	\$0.88	\$13,200	0.042	630.0	\$32,162		\$45,362	\$56,703
624	Gystem										
625	15400 Plumbing Piping										
626	Below Grade DWV, Cast Iron No-										
	Hub										
627	1-1/2" - 2" Pipe & Fittings	125	LF	\$4.71	\$589	0.254	31.8	\$1,623		\$2,212	\$2,765
628	3" Pipe & Fittings	120	LF	\$6.35	\$762	0.267	32.0	\$1,634		\$2,396	\$2,995
629	4" Pipe & Fittings	300	LF	\$7.95	\$2,385	0.291	87.3	\$4,457		\$6,842	\$8,553
630	6" Pipe & Fittings	244	LF	\$13.80	\$3,360	0.329	80.1	\$4,089		\$7,449	\$9,311
631	Above Grade Copper DWV										
632	1-1/2" - 2" Pipe & Fittings	185	LF	\$4.47	\$827	0.182	33.7	\$1,720		\$2,547	\$3,184
633	3" Pipe & Fittings	200	LF	\$7.55	\$1,510	0.276	55.2	\$2,818		\$4,328	\$5,410
634	Domestic HW/CW Supply, Type L										
	Copper										
635	1/2" Pipe, Fittings	370	LF	\$1.54	\$570	0.099	36.6	\$1,868		\$2,438	\$3,048
636	3/4" Pipe, Fittings	185	LF	\$2.07	\$383	0.105	19.4	\$990		\$1,373	\$1,716
637	1" Pipe, Fittings	150	LF	\$2.70	\$405	0.118	17.7	\$904		\$1,309	\$1,636
638	1-1/4" - 1-1/2" Pipe, Fittings	150	LF	\$4.25	\$638	0.154	23.1	\$1,179		\$1,817	\$2,271
639	2" Pipe, Fittings	150	LF	\$6.35	\$953	0.190	28.5	\$1,455		\$2,408	\$3,010
640	3" Pipe, Fittings	150	LF	\$12.65	\$1,898	0.286	42.9	\$2,190		\$4,088	\$5,110
641	Sterilization	1	LS	\$25.00	\$25	12.000	12.0	\$613		\$638	\$798
642											
643											
644											
645											
646											
647											
648											
649											

No. Description Qty UNITS Unit Total Units Totals Cost Cost W OH & P	Line				Material C	osts	Labor I	lours	Labor	Equip	Total	Total Cost
651 15440 Plumbing Fixtures and Trim 6 EA \$781.77 \$4.691 \$8.000 \$48.0 \$2.450 \$7.141 \$8.926 EV EV EV EV EV EV EV E	No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost		Cost	
651 15440 Plumbing Fixtures and Trim 6 EA \$781.77 \$4.691 \$8.000 \$48.0 \$2,450 \$7,141 \$8,926 \$70.000 \$1.6												
Feb Wall Hung Water Closet, Infrared Feb EA \$731.77 \$4,691 \$0.00 \$48.0 \$2,450 \$7,141 \$8,926 FV \$1.00 \$1.00 \$1.00 \$2.00 \$1.634 \$3.730 \$4,663 \$3.730 \$4,663 \$4.00												
FV			_		^				**		a-	
654 Wall Hung Urinal, ADA 1 EA \$335.00 \$3.55 8.000 8.0 \$408 \$763 \$954 655 Drink Ftn, High-Low Dish Type 4 EA \$770.00 \$3.080 6.000 24.0 \$1,225 \$4.305 \$5.381 655 Mop Sink, Terrazzo Drop-In Basin 1 EA \$809.00 \$809 8.000 8.0 \$408 \$1,217 \$1,521 657 Hose Bibb, T-Handle 8 EA \$25.00 \$200 4.000 32.0 \$1,634 \$1,834 \$2,293 658 Wall Hydrart Freeze-Proof 6 EA \$195.00 \$1,70 6.000 36.0 \$1,838 \$3,008 \$3,760 659 St. Stl. Sink, Double Bowl 1 EA \$548.00 \$548 8.000 8.0 \$408 \$956 \$1,195 660 St. Stl. Sink, Double Bowl 4 EA \$480.00 \$1,872 8.000 32.0 \$1,634 \$3,506 \$4,383 661 Washer Wall Box, Flush Mtd 1 EA \$458.00 \$548 8.000 8.0 \$408 \$956 \$1,195 663 801 Washer Wall Box, Flush Mtd 1 EA \$550.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 801 Washer Wall Box, Flush Mtd 1 EA \$550.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 801 Washer Wall Box, Flush Mtd 1 EA \$550.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 801 Washer Wall Box, Flush Mtd 1 EA \$550.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 801 801 Washer Wall Box, Flush Mtd 1 EA \$550.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 801 801 801 801 801 801 801 801 801 801	652	FV	6			\$4,691	8.000	48.0	\$2,450		\$7,141	\$8,926
655 Drink Fin, High-Low Dish Type	653		4		\$524.00	\$2,096	8.000	32.0	\$1,634		\$3,730	
656 Mop Sink, Terrazzo Drop-In Basin 1 EA \$809.00 \$809 8.000 8.0 \$408 \$1,217 \$1,521 \$1,521 \$1,621 \$1,	654		1			\$355	8.000	8.0	\$408		\$763	
Hose Bibb, T-Handle	655	Drink Ftn, High-Low Dish Type	4		\$770.00	\$3,080	6.000	24.0	\$1,225		\$4,305	\$5,381
658 Wall Hydrant Freeze-Proof 6 EA \$195.00 \$1,170 6.000 36.0 \$1,838 \$3,008 \$3,760 659 St. Stl. Sink, Double Bowl 1 EA \$548.00 \$548 8.000 32.0 \$1,634 \$3,506 \$4,383 661 Washer Wall Box, Flush Mtd 1 EA \$45.00 \$45 4.000 4.0 \$204 \$249 \$311 662 Emerg Shower/Eyewash 1 EA \$556.00 \$556 8.000 8.0 \$204 \$249 \$311 662 Emerg Shower/Eyewash 1 EA \$556.00 \$556 8.000 8.0 \$408 \$964 \$120 663 537 \$569 \$56.00 \$368 1.600 6.4 \$327 \$667 \$834 666 2°, Cast Iron Body, Ni-Bronze 4 EA \$92.00 \$368 1.600 6.4 \$327 \$667 \$884 673 3°, Cast Iron Body, Ni-Bronze 4 EA	656	Mop Sink, Terrazzo Drop-In Basin	1		\$809.00	\$809	8.000	8.0	\$408		\$1,217	\$1,521
659 St. Stl. Sink, Double Bowl 1 EA \$548.00 \$548 8.00 8.0 \$408 \$956 \$1,195 660 St. Stl. Sink, Single Bowl 4 EA \$468.00 \$1,872 8.000 32.0 \$1,634 \$3,506 \$4,383 661 Washer Wall Box, Flush Mtd 1 EA \$4550.00 \$556 8.000 8.0 \$408 \$964 \$11,205 662 Emerg Shower/Eyewash 1 EA \$556.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 15450 Plumbing Specialties, Equipment Floor Drains \$667 \$672 \$667 \$667 \$667 \$834 \$666 \$2°, Cast Iron Body, Ni-Bronze 4 EA \$85.00 \$340 \$1.600 6.4 \$327 \$667 \$834 667 3°, Cast Iron Body, Ni-Bronze 4 EA \$92.00 \$368 \$1.600 6.4 \$327 \$665 \$869 Grate \$668 Floor Sink, 3°, Enameled Cl Body	657	Hose Bibb, T-Handle	8		\$25.00	\$200	4.000	32.0	\$1,634		\$1,834	\$2,293
660 St. Stl. Sink, Single Bowl 4 EA \$468.00 \$1,872 8.000 32.0 \$1,634 \$3,506 \$4,383 661 Washer Wall Box, Flush Mtd 1 EA \$45.00 \$45 4.000 4.0 \$204 \$249 \$311 662 Emerg Shower/Eyewash 1 EA \$556.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 664 15450 Plumbing Specialties, Equipment Floor Drains 666 Ploor Drains 666 2", Cast Iron Body, Ni-Bronze 4 EA \$85.00 \$340 1.600 6.4 \$327 \$667 \$834 674 674 PDI Type A 2 EA \$750.00 \$10,000 \$400 1.60 8.2 \$41 \$751 \$939 680 8.00 \$400 1.60 \$40 \$40 \$40 \$40 \$40 \$40 \$40 \$40 \$40 \$4	658	Wall Hydrant Freeze-Proof	6	EA	\$195.00	\$1,170	6.000	36.0	\$1,838		\$3,008	\$3,760
661 Washer Wall Box, Flush Mtd 1 EA \$45.00 \$45 4.000 4.0 \$204 \$249 \$311 662 Emerg Shower/Eyewash 1 EA \$556.00 \$556 8.000 8.0 \$408 \$964 \$1,205 663 663 664 15450 Plumbing Specialties, Equipment Floor Drains 665 Floor Drains 666 2", Cast Iron Body, Ni-Bronze 4 EA \$85.00 \$340 1.600 6.4 \$327 \$667 \$834 678 679 680 680 \$1000 \$1000 \$1000 \$10.000 \$1	659	St. Stl. Sink, Double Bowl	1		\$548.00	\$548	8.000	8.0	\$408		\$956	\$1,195
Final Part Fin	660	St. Stl. Sink, Single Bowl	4	EA	\$468.00	\$1,872	8.000	32.0	\$1,634		\$3,506	\$4,383
663 664 15450 Plumbing Specialties, Equipment 665 Floor Drains 666 2", Cast Iron Body, Ni-Bronze	661	Washer Wall Box, Flush Mtd	1	EA	\$45.00	\$45	4.000	4.0	\$204		\$249	\$311
15450 Plumbing Specialties, Equipment Floor Drains Floor Drains Floor Drains Floor Drains Floor Drains Floor Body, Ni-Bronze 4 EA \$85.00 \$340 1.600 6.4 \$327 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$834 \$667 \$667 \$668 Floor Sink, 3", Enameled CI Body 1 EA \$126.00 \$126 1.600 1.6 \$82 \$208 \$260 \$689 Floor Cleanouts 4 EA \$65.00 \$260 1.330 5.3 \$271 \$531 \$664 \$669 Floor Cleanouts 4 EA \$65.00 \$130 1.000 2.0 \$102 \$232 \$290 \$671 Domestic Water Pump, Bronze, 1 EA \$420.00 \$420 4.000 4.0 \$204 \$624 \$780 \$762 \$780 \$673 \$674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 \$675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$194 \$243 \$675 PDI Type B 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 \$679 \$680 \$679 \$680 \$68	662	Emerg Shower/Eyewash	1	EA	\$556.00	\$556	8.000	8.0	\$408		\$964	\$1,205
Floor Drains Floor State Floor Cleanouts Floor Cleanouts Floor Cleanouts Floor Cleanouts Floor State Floor	663											
666 2", Cast Iron Body, Ni-Bronze 4 EA \$85.00 \$340 1.600 6.4 \$327 \$667 \$834 Grate 667 3", Cast Iron Body, Ni-Bronze 4 EA \$92.00 \$368 1.600 6.4 \$327 \$695 \$869 Grate 668 Floor Sink, 3", Enameled CI Body 1 EA \$126.00 \$126 1.600 1.6 \$82 \$208 \$260 669 Floor Cleanouts 4 EA \$65.00 \$260 1.330 5.3 \$271 \$531 \$664 670 Vent Thru Roof, 4" 2 EA \$65.00 \$130 1.000 2.0 \$102 \$232 \$290 671 Domestic Water Pump, Bronze, Frac HP 672 Mixing Valve, 25 GPM 1 EA \$710.00 \$710 0.800 0.8 \$41 \$751 \$939 673 Water Hammer Arresters 674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.00 16.0 \$817 \$10,817 \$13,521 679 680	664	15450 Plumbing Specialties, Equipme	nt									
Grate 667 3", Cast Iron Body, Ni-Bronze 4 EA \$92.00 \$368 1.600 6.4 \$327 \$695 \$869 Grate 668 Floor Sink, 3", Enameled CI Body 1 EA \$126.00 \$126 1.600 1.6 \$82 \$208 \$260 669 Floor Cleanouts 4 EA \$65.00 \$260 1.330 5.3 \$271 \$531 \$664 670 Vent Thru Roof, 4" 2 EA \$65.00 \$130 1.000 2.0 \$102 \$232 \$290 671 Domestic Water Pump, Bronze, 1 EA \$420.00 \$420 4.000 4.0 \$204 \$624 \$780 Frac HP 672 Mixing Valve, 25 GPM 1 EA \$710.00 \$710 0.800 0.8 \$41 \$751 \$939 673 Water Hammer Arresters 674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$10,000.00 \$10,000 16.00 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.00 16.0 \$817 \$10,817 \$13,521 678 679 680	665	Floor Drains										
667 3", Cast Iron Body, Ni-Bronze 4 EA \$92.00 \$368 1.600 6.4 \$327 \$695 \$869 668 Floor Sink, 3", Enameled CI Body 1 EA \$126.00 \$126 1.600 1.6 \$82 \$208 \$260 669 Floor Cleanouts 4 EA \$65.00 \$260 1.330 5.3 \$271 \$531 \$664 670 Vent Thru Roof, 4" 2 EA \$65.00 \$130 1.000 2.0 \$102 \$232 \$290 671 Domestic Water Pump, Bronze, Frac HP 1 EA \$420.00 \$420 4.000 4.0 \$204 \$624 \$780 672 Mixing Valve, 25 GPM 1 EA \$710.00 \$710 0.800 0.8 \$41 \$751 \$939 673 Water Hammer Arresters 674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 675 PDI Type B	666	2", Cast Iron Body, Ni-Bronze	4	EA	\$85.00	\$340	1.600	6.4	\$327		\$667	\$834
Grate 668		Grate										
Floor Sink, 3", Enameled CI Body 1 EA \$126.00 \$126 1.600 1.6 \$82 \$208 \$260 \$69 Floor Cleanouts 4 EA \$65.00 \$260 1.330 5.3 \$271 \$531 \$664 \$670 Vent Thru Roof, 4" 2 EA \$65.00 \$130 1.000 2.0 \$102 \$232 \$290 \$671 Domestic Water Pump, Bronze, 1 EA \$420.00 \$420 4.000 4.0 \$204 \$624 \$780 \$672 Mixing Valve, 25 GPM 1 EA \$710.00 \$710 0.800 0.8 \$41 \$751 \$939 \$753 \$750 \$7	667	3", Cast Iron Body, Ni-Bronze	4	EA	\$92.00	\$368	1.600	6.4	\$327		\$695	\$869
Floor Cleanouts 4 EA \$65.00 \$260 1.330 5.3 \$271 \$531 \$664 670 Vent Thru Roof, 4" 2 EA \$65.00 \$130 1.000 2.0 \$102 \$232 \$290 671 Domestic Water Pump, Bronze, 1 EA \$420.00 \$420 4.000 4.0 \$204 \$624 \$780 Frac HP		Grate										
670 Vent Thru Roof, 4" 2 EA \$65.00 \$130 1.000 2.0 \$102 \$232 \$290 671 Domestic Water Pump, Bronze, 1 EA \$420.00 \$420 4.000 4.0 \$204 \$624 \$780 Frac HP 672 Mixing Valve, 25 GPM 1 EA \$710.00 \$710 0.800 0.8 \$41 \$751 \$939 673 Water Hammer Arresters 674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.00 16.0 \$817 \$10,817 \$13,521 678 679 680	668	Floor Sink, 3", Enameled CI Body	1	EA	\$126.00	\$126	1.600	1.6	\$82		\$208	\$260
671 Domestic Water Pump, Bronze, Frac HP 672 Mixing Valve, 25 GPM 673 Water Hammer Arresters 674 PDI Type A 675 PDI Type B 676 Trap Primer 677 Domestic Water Heater 678 Domestic Water Heater 679 680 680 680 680 680 680 680 680 680 680	669	Floor Cleanouts	4	EA	\$65.00	\$260	1.330	5.3	\$271		\$531	\$664
Frac HP 672 Mixing Valve, 25 GPM 673 Water Hammer Arresters 674 PDI Type A 675 PDI Type B 676 Trap Primer 677 Domestic Water Heater 678 679 680	670	Vent Thru Roof, 4"	2	EA	\$65.00	\$130	1.000	2.0	\$102		\$232	\$290
672 Mixing Valve, 25 GPM 1 EA \$710.00 \$710 0.800 0.8 \$41 \$751 \$939 673 Water Hammer Arresters 674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.00 16.0 \$817 \$10,817 \$13,521 678 679 680	671	Domestic Water Pump, Bronze,	1	EA	\$420.00	\$420	4.000	4.0	\$204		\$624	\$780
673 Water Hammer Arresters 674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.00 16.0 \$817 \$10,817 \$13,521 678 679 680		Frac HP										
674 PDI Type A 2 EA \$56.00 \$112 0.800 1.6 \$82 \$194 \$243 675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.000 16.0 \$817 \$10,817 \$13,521 678 679 680	672	Mixing Valve, 25 GPM	1	EA	\$710.00	\$710	0.800	0.8	\$41		\$751	\$939
675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.000 16.0 \$817 \$10,817 \$13,521 678 679 680	673	Water Hammer Arresters										
675 PDI Type B 2 EA \$75.00 \$150 0.800 1.6 \$82 \$232 \$290 676 Trap Primer 4 EA \$100.00 \$400 1.500 6.0 \$306 \$706 \$883 677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.000 16.0 \$817 \$10,817 \$13,521 678 679 680	674	PDI Type A	2	EA	\$56.00	\$112	0.800	1.6	\$82		\$194	\$243
677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.000 16.0 \$817 \$10,817 \$13,521 678 679 680	675						0.800					
677 Domestic Water Heater 1 EA \$10,000.00 \$10,000 16.000 16.0 \$817 \$10,817 \$13,521 678 679 680	676	Trap Primer	4	EA	\$100.00	\$400	1.500	6.0	\$306		\$706	\$883
678 679 680	677		1	EA	\$10,000.00	\$10,000	16.000	16.0			\$10,817	\$13,521
679 680					, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	* -,			* -		* -,-	+ -,-
680												
	681											

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
682	15483 Fuel Gas Systems										
683	Connect To Service, Valves, Pipe,	1	LS	\$1,000.00	\$1,000	8.000	8.0	\$408		\$1,408	\$1,760
000	Fittings	•	20	Ψ1,000.00	Ψ1,000	0.000	0.0	ψ.00		ψ1,100	ψ1,700
684	Sched 40 Blk Steel										
685	1" Pipe, Fittings	50	LF	\$2.63	\$132	0.068	3.4	\$174		\$306	\$383
686	2" Pipe, Fittings	50	LF	\$4.72	\$236	0.113	5.7	\$291		\$527	\$659
687				¥ ···· =	4			+		*	4
688	15500 Hydronic Piping & Equipment										
689	Pipe & Fittings, Copper Type L										
690	Heating System Piping, Copper										
	Type L										
691	3/4" Pipe, Fittings	300	LF	\$2.07	\$621	0.105	31.5	\$1,608		\$2,229	\$2,786
692	1" Pipe, Fittings	190	LF	\$2.70	\$513	0.118	22.4	\$1,144		\$1,657	\$2,071
693	1-1/4" - 1-1/2" Pipe, Fittings	190	LF	\$4.25	\$808	0.154	29.3	\$1,496		\$2,304	\$2,880
694	2" Pipe, Fittings	190	LF	\$6.35	\$1,207	0.190	36.1	\$1,843		\$3,050	\$3,813
695	2-1/2" - 3" Pipe, Fittings	190	LF	\$12.65	\$2,404	0.286	54.3	\$2,772		\$5,176	\$6,470
696	Sched 40 Blk Steel										
697	4" Pipe, Fittings	190	LF	\$13.89	\$2,639	0.200	38.0	\$1,940		\$4,579	\$5,724
698	6" Pipe, Fittings	100	LF	\$24.22	\$2,422	0.348	34.8	\$1,777		\$4,199	\$5,249
699											
700	Hydronic Specialties										
701	Auto Air Vent, High Capacity	1	EA	\$575.00	\$575	1.330	1.3	\$66		\$641	\$801
702	Air Separator	1	EA	\$1,200.00	\$1,200					\$1,200	\$1,500
703	Expansion Tanks										
704	Diaphragm Type Expansion Tank,	1	EA	\$685.58	\$686	2.000	2.0	\$102		\$788	\$985
	33 Gal										
705	DHW Expansion Tank	1	EA	\$65.00	\$65	1.000	1.0	\$51		\$116	\$145
706	Relief Valve, ASME	2	EA	\$135.00	\$270	2.000	4.0	\$204		\$474	\$593
707	Pressure Gauges	4	EA	\$65.00	\$260	0.500	2.0	\$102		\$362	\$453
708	Thermometers	6	EA	\$45.00	\$270	0.500	3.0	\$153		\$423	\$529
709	Pump, Equipment Flex Connector	4	EA	\$150.00	\$600	1.000	4.0	\$204		\$804	\$1,005
710	Glycol System										
711	Mixing Tank	1	EA	\$850.00	\$850	6.000	6.0	\$306		\$1,156	\$1,445
712	Propylene Glycol	203	GAL	\$8.00	\$1,627	0.236	48.0	\$2,450		\$4,077	\$5,096
713	Valves, Piping, Feed Reg,	1	LS	\$400.00	\$400	4.000	4.0	\$204		\$604	\$755
	Controls										

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
714											
71 4 715	15540 HVAC Pumps										
716	Main Heating Circ Pump, 225	2	EA	\$2,400.00	\$4,800	8.000	16.0	\$817		\$5,617	\$7,021
710	GPM, 2 HP	2	LA	Ψ2,+00.00	Ψ+,000	0.000	10.0	ΨΟ17		ψ5,017	Ψ1,021
717	AHU Circ Pump, 70 GPM, 3/4 HP	2	EA	\$960.00	\$1,920	6.000	12.0	\$613		\$2,533	\$3,166
718											
719	Cast Iron Boilers										
720	Boilers - Cast Iron Oil Fired, 1,275 MBH	2	EA	\$12,300.00	\$24,600	57.143	114.3	\$5,835		\$30,435	\$38,044
721	Boiler Trim, Foundation,	1	LS	\$18,460.00	\$18,460	85.714	85.7	\$4,375		\$22,835	\$28,544
722	Specialties										
723	Stack and Flue Vents										
724	Pressure Stack, 18"	24	LF	\$72.50	\$1,740	0.421	10.1	\$516		\$2,256	\$2,820
725	Fittings, 18"	4	EA	\$400.00	\$1,600	0.842	3.4	\$174		\$1,774	\$2,218
726	Roof Support Assy, Penetration,	1	EA	\$480.00	\$480	1.053	1.1	\$56		\$536	\$670
	Curb			·	·			·		·	·
727	Stack Cap, Supports	1	EA	\$320.00	\$320	0.562	0.6	\$31		\$351	\$439
728											
729	Terminal Heat Transfer Units										
730	(Typ Assy Includes Fittings, AAV,										
	Ctrl Valve,										
731	Isolation Valves, Bal Valve)			**							.
732	Duct Coils	4	EA	\$240.00	\$960	1.500	6.0	\$306		\$1,266	\$1,583
733	Unit Heaters, Util & Fish Rearing Areas	12	EA	\$700.00	\$8,400	4.000	48.0	\$2,450		\$10,850	\$13,563
734	Cabinet Unit Heaters (Entrances)	3	EA	\$893.00	\$2,679	4.000	12.0	\$613		\$3,292	\$4,115
735	,			******	* ,-			*		,	Ŧ , -
736											
737											
738											
739											
740											
741											
742											
743											

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
744											
745	15800 Air Distribution										
746	Component Air Handlers, Incl Mix										
747	Box, Coils,										
747	Filter Section, Int. Isolation	4	- ^	#04.000.00	# 04.000	40.000	40.0	CO 444		COC 04.4	# 404 440
748	AHU-1: 47,400 CFM	1	EA	\$94,800.00	\$94,800	40.000	40.0	\$2,114		\$96,914	\$121,143
749 750	Exhaust Fans	2	Ε.Δ.	¢200.00	# 400	4.000	0.0	#400			#4.000
750 751	Toilet Rooms	2	EA	\$200.00	\$400	4.000	8.0	\$423		\$823	\$1,029
751 752	Vent Fone Litility Sets										
752 753	Vent Fans, Utility Sets Mech Room Ventilation, Plenum,	1	LS	\$1,200.00	\$1,200	6.000	6.0	\$317		\$1,517	\$1,896
755	Dampers	1	LS	\$1,200.00	Φ1,200	0.000	0.0	φ317		φ1,517	φ1,090
754	Dampers										
75 4 755	Ductwork										
756	Low Velocity Duct, Incl Allowance										
757	For Waste, Supports and Joints										
758	Round Spiral, Galvanized	11,300	LBS	\$1.60	\$18,080	0.075	847.5	\$44,787		\$62,867	\$78,584
759	Rectangular, Galvanized	4,900		\$1.90	\$9,310	0.084	411.6	\$21,751		\$31,061	\$38,826
760	garan, cananas	.,		*****	40,000			+ =-,		4 01,001	400,000
761	Ductwork Accessories										
762	Fire/Smoke Dampers	2	EA	\$350.00	\$700	2.000	4.0	\$211		\$911	\$1,139
763	Duct Access Doors	2	EA	\$28.00	\$56	0.750	1.5	\$79		\$135	\$169
764	Volume Dampers	50	EA	\$18.00	\$900	0.500	25.0	\$1,321		\$2,221	\$2,776
765											
766	Air Outlets and Inlets: Diffusers,										
	Grilles Incl Boots,										
767	Mtg Hdwre, Frames, Accessories										
768	S/A Diffusers	90		\$45.00	\$4,050	1.000	90.0	\$4,756		\$8,806	\$11,008
769	R/A, E/A, Transfer Grilles	7	EA	\$28.00	\$196	0.660	4.6	\$243		\$439	\$549
770	Louvers, Fixed Alum Incl.	160	SF	\$40.00	\$6,400	0.050	8.0	\$423		\$6,823	\$8,529
	Birdscreen										
771											
772											
773											
774											
775											

Line				Material C	osts	Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
776	45050 0 4 10 4										
777	15970 Control Systems	00	DTO	#700.00	#04.000					#04.000	#04.000
778	Control Points	36	PTS	\$700.00	\$24,920					\$24,920	\$34,888
779 700	45000 Deleveler O Treaties										
780	15990 Balancing & Testing	4	LS	\$200.00	ቀ200	4.700	47	ሲ ጋድን		\$450	የ ፍጋ 4
781 782	Balance Hydronic System Balance Air Systems	1	LS	\$200.00	\$200 \$200	54.500	4.7 54.5	\$253 \$2,931		\$453 \$3,131	\$634 \$4,383
783	Commissioning, Startup	1	LS	\$200.00	\$200 \$200	120.000	120.0			\$6,653	\$ 4 ,363 \$9,314
784	Commissioning, Startup	ı	LS	\$200.00	\$200	120.000	120.0	\$6,453		\$6,653	Ф9,314
785											
786											
787											
788											
789											
769 790											
790 791											
791 792											
793											
794											
795											
796											
797											
798											
799											
800											
801											
802											
803											
804											
805											
806											
807											
808											
809	Subtotal: MECHANICAL: Cost bas	sed on 47.359	9 SF		\$347,302		6,733.0	\$328,540	\$7,075	\$682,917	\$843,959
810	Average Unit Price for this division				,		-,	,, - · · ·	Ţ., .	,, - · ·	40.0,0 00
811	Average Labor Rate for this divisio										
	111191 = 111111111111111111111111111111	Ţ : 2:00 poi									

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
812											
813	ELECTRICAL										
814	16010 Basic Electrical Requirements										
815	Field Engineering: Submittals, Shop & Record										
816	Dwgs, Operating Instructions, O&M	100	HRS	\$5.00	\$500	1.000	100.0	\$3,675		\$4,175	\$4,175
0.0	Manuals			ψο.σσ	Ψοσο			ψο,σ. σ		Ψ.,σ	Ψ.,σ
817	Supervision	24	WEEKS			50.000	1,200.0	\$60,000	\$1,500	\$61,500	\$61,500
818	Materials Control	24	WEEKS			30.000	720.0	\$15,120	\$1,650	\$16,770	\$16,770
819	Bond and Insurance	1	LS	\$7,500.00	\$7,500					\$7,500	\$7,500
820	Tools and Equipment	1	LS						\$3,000	\$3,000	\$3,000
821											
822	Service & Distribution Systems										
823	Service Equipment										
824	Transformer	500	KVA	\$27.00	\$13,500	0.120	60.0	\$3,258		\$16,758	\$20,948
825	Pole Top Disconnect 100A 7.2KV	1	EA	\$2,500.00	\$2,500	8.000	8.0	\$434	\$140	\$3,074	\$3,843
826	Ductbank 2"4"C 3#1/0 15kv	500	LF	\$45.11	\$22,555	1.108	554.0	\$30,081		\$52,636	\$65,795
827											
828	Main Distribution Equipment										
829	MDP 600A 280/120V 3Ph 4W	1	EA	\$9,800.00	\$9,800	80.000	80.0	\$4,344		\$14,144	\$17,680
830	MDP 600A 280/120V 3Ph 4W	1	EA	\$10,300.00	\$10,300	70.000	70.0	\$3,801		\$14,101	\$17,626
831	Disconnect Sw 600A 600V	1	EA	\$1,900.00	\$1,900	13.000	13.0	\$706		\$2,606	\$3,258
832				. ,				•		. ,	
833	Switches										
834	600A ATS	1	EA	\$8,200.00	\$8,200	16.000	16.0	\$869		\$9,069	\$11,336
835											
836	Panelboards										
837	Panelboards, 120/208V, 3 Phase, 4	5	EA	\$1,155.00	\$5,775	10.000	50.0	\$2,715		\$8,490	\$10,613
	Wire, 225A, MLO, 42 Circuit,			. ,						. ,	
	W/Breakers										
838											
839	Transformer										
840	150 KVA Dry Transformer	1	EA	\$4,200.00	\$4,200	16.000	16.0	\$869		\$5,069	\$6,336
	480/277v-208/120v							-		• •	
841											
842											

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
843											
844	Feeders & Subfeeds										
845	600 Amp: 2 Sets, 3" RGS, 3#350	300	LF	\$39.64	\$11,892	0.970	291.0	\$15,801		\$27,693	\$34,616
0+0	KCMIL, 1#3/0	300	L1	Ψ03.0-	Ψ11,032	0.370	231.0	ψ15,001		Ψ21,093	ψ3-4,010
846	225 Amp: 2-1/2" RGS, 4#250	625	LF	\$16.65	\$10,406	0.404	252.5	\$13,710		\$24,116	\$30,145
040	KCMIL, 1#4	020		Ψ10.00	Ψ10,400	0.404	202.0	ψ10,710		Ψ2-4,110	φου, 1-10
847	150 Amp: 2" RGS, 3#1/0, 1#6	300	LF	\$7.45	\$2,235	0.263	78.9	\$4,284		\$6,519	\$8,149
848	100 Amp: 1-1/4" RGS, 3#2, 1#8	200	LF	\$5.63	\$1,126	0.214	42.8	\$2,324		\$3,450	\$4,313
849	300 Amp: 3" RGS, 3#350 KCMIL,	150	LF	\$18.64	\$2,796	0.468	70.2	\$3,812		\$6,608	\$8,260
	1#4			******	- -,			4 0,01		40,000	¥-,
850											
851	Grounding										
852	Ground Bus 12x2x1/4	6	EA	\$35.00	\$210	0.250	1.5	\$81		\$291	\$364
853	1" PVC 1#2 Ground	300	LF	\$1.57	\$471	0.082	24.6	\$1,336		\$1,807	\$2,259
854	1" PVC 1#1/0 Ground	300	LF	\$1.97	\$591	0.088	26.4	\$1,433		\$2,024	\$2,530
855	Ground Rod 3/4" x 10'	4	EA	\$50.00	\$200	1.000	4.0	\$217		\$417	\$521
856	Exothermic Connection	20	EA	\$7.00	\$140	0.250	5.0	\$271		\$411	\$514
857											
858	Power Distribution										
859	Receptacles	56	EA								
860	Duplex 20A 125V	25	EA	\$2.25	\$56	0.150	3.8	\$206		\$262	\$328
861	GFCI Receptacles	13	EA	\$8.45	\$110	0.150	2.0	\$109		\$219	\$274
862	WP GFCI Receptacles	13	EA	\$23.45	\$305	0.250	3.3	\$179		\$484	\$605
863	Special Purpose Receptacles	5	EA	\$50.00	\$250	1.000	5.0	\$271		\$521	\$651
864	Add For:										
865	3/4in. EMT	1,120		\$0.48	\$538	0.040	44.8	\$2,433		\$2,971	\$3,714
866	Add For RGC In Wet Areas	336	LF	\$0.35	\$118	0.029	9.7	\$527		\$645	\$806
867	3/4in. EMT CONN	112		\$0.50	\$56	0.086	9.6	\$521		\$577	\$721
868	3/4in. EMT CPLG	112	EA	\$1.39	\$156					\$156	\$195
869	3/4in. EMT STRAP 1-H	168	EA	\$0.15	\$25	0.030	5.0	\$271		\$296	\$370
870	#12 THHN	3,696	LF	\$0.09	\$333	0.005	18.5	\$1,004		\$1,337	\$1,671
871	Utility Box 2-1/2 D 1/2 Ko	56	EA	\$1.33	\$74	0.220	12.3	\$668		\$742	\$928
872	1G Ss Receptacle Plate	56	EA	\$2.50	\$140	0.030	1.7	\$92		\$232	\$290
873	1In. X10 S-Tap Screw	280	EA	\$0.02	\$6	0.025	7.0	\$380		\$386	\$483
874											
875											

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
070											
876	40400 Facility 1.0 and allow										
877	16420 Enclosed Controllers	40	Ε.Δ	ФОТ 00	#4.040	4 000	40.0	#000		#4.000	#0.000
878	Fractional To 1/4 HP	16	EA	\$65.00	\$1,040	1.000	16.0	\$869		\$1,909	\$2,386
879	Wiring: Nom. 3/4" EMT 3#10, 1N	480	LF	\$1.17	\$562	0.094	45.1	\$2,449		\$3,011	\$3,764
880	Starter/Disconnects 0.5 HP	2	EA	\$250.00	\$500	3.000	6.0	\$326		\$826	\$1,033
881	Wiring: Nom. 3/4" EMT 3#10, 1N	160	LF	\$1.17	\$187	0.094	15.0	\$814		\$1,001	\$1,251
882	Starter/Disconnects 1 HP	3	EA	\$250.00	\$750	3.000	9.0	\$489		\$1,239	\$1,549
883	Wiring: Nom. 3/4" EMT 3#10, 1N	240	LF	\$1.17	\$281	0.094	22.6	\$1,227		\$1,508	\$1,885
884	Starter/Disconnects 2.5 HP	2	EA	\$250.00	\$500	3.000	6.0	\$326		\$826	\$1,033
885	Wiring: Nom. 3/4" EMT 3#10, 1N	160	LF	\$1.17	\$187	0.094	15.0	\$814		\$1,001	\$1,251
886	Starter/Disconnect, AHU 25 HP	1	EA	\$850.00	\$850	8.000	8.0	\$434		\$1,284	\$1,605
887	1-1/4" RGS, 4#4, 1#8	80	LF	\$4.75	\$380	0.203	16.2	\$880		\$1,260	\$1,575
888	Starter/Disconnect, Fans15 HP	1	EA	\$600.00	\$600	6.000	6.0	\$326		\$926	\$1,158
889	Wiring: 1" RGS, 3#4, 1#8	80	LF	\$1.17	\$94	0.094	7.5	\$407		\$501	\$626
890	Starter/Disconnect 50 HP	2	EA	\$1,225.00	\$2,450	12.000	24.0	\$1,303		\$3,753	\$4,691
891	Wiring: 1-1/4" RGS, 4#2, 1#8	120	LF	\$6.21	\$745	0.217	26.0	\$1,412		\$2,157	\$2,696
892	VFD 100A	2	EA	\$7,700.00	\$15,400	30.000	60.0	\$3,258		\$18,658	\$23,323
893	MCC Structures	2	EA	\$3,500.00	\$7,000	40.000	80.0	\$4,344		\$11,344	\$14,180
894				. ,	. ,			. ,		. ,	. ,
895	Interior Lighting										
896	4' Fluor, 2x4 Sfc Lens, 4L	17	EA	\$85.00	\$1,445	1.250	21.3	\$1,157		\$2,602	\$3,253
897	4' HE Fluor, 2x4 Paralouver, 4L	3	EA	\$106.00	\$318	1.250	3.8	\$206		\$524	\$655
898	400W Metal Halide	122	EA	\$700.00	\$85,400	3.000	366.0	\$19,873		\$105,273	\$131,591
899	Exit Sign, LED	11	EA	\$56.00	\$638	2.000	22.8	\$1,238		\$1,876	\$2,345
900	Emerg. Batt Wall Pack	40	EA	\$175.00	\$7,000	3.000	120.0	\$6,516		\$13,516	\$16,895
901	Switches	8	EA	\$17.81	\$137	0.529	4.1	\$223		\$360	\$450
902	Wiring: 3/4" Cond, 3-#12, Gnd	3,100	LF	\$0.96	\$2,976	0.080	248.0	\$13,466		\$16,442	\$20,553
903	Lighting Controls	0,100	LS	\$5,000.00	\$5,000	23.429	23.4	\$1,271		\$6,271	\$7,839
904	Lighting Controls		LO	ψ3,000.00	ψ5,000	25.425	25.4	Ψ1,271		ψ0,271	Ψ1,009
905	Evtorior Lighting										
906	Exterior Lighting Wall Mtd 70 W HPS	10	EA	\$180.00	\$1,800	2.000	20.0	\$1,086		\$2,886	\$3,608
			EA	·	. ,						
907	Wall Mtd 150 W HPS	18		\$385.00	\$6,738	2.500	43.8	\$2,378		\$9,116	\$11,395
908	Wiring: 3/4" Cond, 3-#12, Gnd	963	LF	\$0.96	\$924	0.080	77.0	\$4,181		\$5,105	\$6,381
909	Lighting Controls	1	LS	\$500.00	\$500	8.000	8.0	\$434		\$934	\$1,168
910											
911											

Line				Material C	osts	Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
912											
913	Fire Alarm & Detection										
914	FACP	1	EA	\$7,887.00	\$7,887	45.069	45.1	\$2,441		\$10,328	\$12,910
915	FAA	1	EA	\$1,500.00	\$1,500	8.000	8.0	\$433		\$1,933	\$2,416
916	Horn/Strobe	36	EA	\$92.00	\$3,271	1.500	53.3	\$2,885		\$6,156	\$7,695
917	Manual Pull Station	10	EA	\$85.00	\$850	1.000	10.0	\$541		\$1,391	\$1,739
918	Heat Detector	36	EA	\$60.00	\$2,133	1.000	35.6	\$1,927		\$4,060	\$5,075
919	Smoke Detector, Duct	2	EA	\$220.00	\$2,133 \$440	2.500	5.0	\$1,927 \$271		\$4,060 \$711	\$889
			LF								
920	Wiring	4,200		\$0.85	\$3,570 \$5,540	0.071	298.2	\$16,139		\$19,709	\$24,636
921	Design, Approvals, Testing	1	LS	\$5,540.00	\$5,540					\$5,540	\$6,925
922											
923	Computer Outlets			AT 000 00	A= 000	40.000	40.0	#0.40		07.405	40.050
924	Distribution Frames and Racks	1	LS	\$5,000.00	\$5,000	40.000	40.0	\$2,165		\$7,165	\$8,956
925	Outlets, Incl Cat 5 Wiring, Conduit	20	EA	\$65.00	\$1,300	2.000	40.0	\$2,165		\$3,465	\$4,331
926	Cable Tray	240	LF	\$12.00	\$2,880	0.250	60.0	\$3,247		\$6,127	\$7,659
927	Design, Test System	1	LS	\$2,090.00	\$2,090					\$2,090	\$2,613
928				•							
929	Misc Special Systems	32,336	SF	\$1.00	\$32,336					\$32,336	\$40,420
930											
931											
932											
933											
934											
935											
936											
937											
938											
939											
940											
941											
942											
943											
944											
945	Subtotal: ELECTRICAL: Cost based	on 47,359	SF		\$332,163		5,722.4	\$279,723	\$6,290	\$618,176	\$749,490
946	Average Unit Price for this division is:	•			•		•	•	. ,	•	
947	Average Labor Rate for this division:	•									
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	F- 									

Line				Material C	costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
0.40											
948	NEW DUIL DING OVER EVICTING RACE	22.222	e E								
949 I 950	NEW BUILDING OVER EXISTING RACE CONCRETE	32,336	ər								
950 951	Footings - Perimeter Footing 24"x1:	720	LF								
951	Forms	1,200	SF	\$0.85	\$1,020	0.100	120.0	\$6,168		\$7,188	\$7,188
953	Re-steel	4,787	LBS	\$0.83 \$0.43	\$2,059	0.100	120.0	\$6,646		\$8,705	\$8,705
953 954	Concrete, 3000 PSI, Pumped	4,767	CY	\$100.00	\$2,059 \$4,667	1.286	60.0	\$3,084	\$933	\$8,684	\$8,703 \$8,684
	Placement	47	C1	φ100.00	φ4,00 <i>1</i>	1.200	60.0	φ3,064	φ933	ФО,004	Ф0,004
955											
956	Footings - Columns 5'0"x5'0", Avg.	36	EA								
957	Forms	1,080	SF	\$1.06	\$1,145	0.125	135.0	\$6,939		\$8,084	\$8,084
958	Re-steel	7,690	LBS	\$0.43	\$3,307	0.027	207.6	\$10,671		\$13,978	\$13,978
959	Concrete, 3000 PSI, Pumped Placement	53	CY	\$100.00	\$5,250	1.286	67.5	\$3,470	\$1,050	\$9,770	\$9,770
960											
961	Foundation Walls 4'	720	LF								
962	Forms	5,760	SF	\$0.85	\$4,896	0.100	576.0	\$29,607		\$34,503	\$34,503
963	Re-steel	17,280	LBS	\$0.43	\$7,430	0.027	466.6	\$23,984		\$31,414	\$31,414
964	Concrete, 3000 PSI, Pumped Placement	75	CY	\$100.00	\$7,504	1.286	96.5	\$4,960	\$1,501	\$13,965	\$13,965
965											
966											
967											
968											
969											
970											
971	Subtotal: CONCRETE: Cost based or				\$37,278		1,858.5	\$95,529	\$3,484	\$136,291	\$136,291
972	Average Unit Price for this division is:										
973	Average Labor Rate for this division:	51.40 per	hour								
974											
975	MASONRY										
976	Not Used										
977	-										
978	Subtotal: MASONRY: Cost based on										
979	Average Unit Price for this division is:										
980	Average Labor Rate for this division: \$	50.00 per h	nour								

Line				Material Co	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
981											
981	METALS										
983	Miscellaneous Metals										
984	Misc Metals	32,336	SF	\$0.05	\$1,617	0.001	32.3	\$1,780		\$3,397	\$4,076
985											
986											
987											
988											
989	Subtotal: METALS: Cost bas	•	05		\$1,617		32.3	\$1,780		\$3,397	\$4,076
990 991	Average Unit Price for this div										
991	Average Labor Rate for this of	alvision: \$55.11 per	nour								
993	WOOD AND PLASTIC										
994	Not Used										
995											
996	Subtotal: WOOD AND PLAST	IC: Cost based or	n 47,359 SF	1							
997	Average Unit Price for this div										
998	Average Labor Rate for this of	division: \$0.00 per h	nour								
999											
1,000	THERMAL & MOISTURE PROT	ECTION									
1,001 1,002	Flashing & Sheet Metal Base Flashing	720	LF	\$2.00	\$1,440	0.040	28.8	\$1,546		\$2,986	\$3,583
1,002	Misc Flashings	360		\$2.00 \$2.00	\$1, 44 0 \$720	0.040	26.6 14.4	\$1,5 4 0 \$773		\$1,493	\$1,792
1,004	Wilde Fladininge	000		Ψ2.00	Ψ120	0.010		Ψίτο		ψ1,100	Ψ1,702
1,005	Joint Sealants	32,336	SF	\$0.04	\$1,293	0.001	32.3	\$1,660		\$2,953	\$2,953
1,006		,		·	. ,			. ,		. ,	. ,
1,007											
1,008											
1,009											
1,010											
1,011											
1,012 1,013											
1,013	Subtotal: THERMAL & MOIST	TUDE DEOTECTIO	N: Cost ha	sod on 47 350 S	\$3,453		75.5	\$3,979		\$7,432	\$8,328
1,014	Average Unit Price for this div			3eu 011 47,339 3	φυ, 4 υδ		75.5	φυ, <i>919</i>		φ1, 4 32	უ 0,3 ∠ 0
1,016	Average Labor Rate for this di	•									
.,	The same of the same of the same of the same of	‡0= 0 por									

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,017											
1,018	DOORS AND WINDOWS										
1,019	Steel Doors & Frames							•			
1,020	HM Insulated 3'0"x7'0"	2	EA	\$300.00	\$600	3.000	6.0	\$308		\$908	\$908
1,021	HM Insulated 3'0"x7'0" PR	2	PR	\$600.00	\$1,200	5.000	10.0	\$514		\$1,714	\$1,714
1,022	Insul. HM Frame	4	EA	\$170.00	\$680	2.000	8.0	\$411		\$1,091	\$1,091
1,023											
1,024	Overhead Doors										
1,025	Insulated Metal Overhead Door,	4	EA	\$3,360.00	\$13,440	12.000	48.0	\$2,289		\$15,729	\$18,088
	12'0"x14'0"										
1,026	Motor Operators	4	EA	\$500.00	\$2,000					\$2,000	\$2,300
1,027											
1,028	Windows										
1,029	Alum Storefront Windows	1,080	SF	\$38.00	\$41,040	0.143	154.4	\$7,936		\$48,976	\$48,976
1,030											
1,031	Finish Hardware										
1,032	Ext Hardware Set	4	EA	\$600.00	\$2,400	3.000	12.0	\$617		\$3,017	\$3,017
1,033											
1,034											
1,035											
1,036	Subtotal: DOORS AND WINDOWS: (SF	\$61,360		238.4	\$12,075		\$73,435	\$76,094
1,037	Average Unit Price for this division is:	•									
1,038	Average Labor Rate for this division:	\$50.65 per	hour								
1,039											
1,040	FINISHES										
1,041	Not Used										
1,042											
1,043	Subtotal: FINISHES: Cost based on										
1,044	Average Unit Price for this division is:										
1,045	Average Labor Rate for this division:	\$0.00 per h	our								
1,046											
1,047	SPECIALTIES										
1,048	Not Used										
1,049	Subtotal: SPECIALTIES: Cost based										
1,050	Average Unit Price for this division is:										
1,051	Average Labor Rate for this division:	\$0.00 per h	our								

No. Description Qty UNITS Unit Total Units Total Cost Cost Cost W/OH & P	Line				Material	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
1,055	No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,055												
1,056 1,057 1,058 1,059 1,059 1,059 1,050 1,050 1,060 1,061 1,061 1,061 1,062 1,063 1,063 1,064 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,067 1,068 1,069 1,070 1,071 1,071 1,077 1,077 1,077 1,077 1,077 1,077 1,077 1,077 1,077 1,078 1,079 1,079 1,079 1,070 1,071 1,077 1,077 1,078 1,079 1,079 1,079 1,070 1,071 1,077 1,077 1,078 1,078 1,079 1,079 1,079 1,079 1,070 1,071 1,077 1,078 1,078 1,079 1,079 1,079 1,070 1,071 1,077 1,078 1,078 1,079 1,079 1,079 1,079 1,079 1,070 1,070 1,071 1,077 1,078 1,078 1,079 1,079 1,079 1,079 1,070 1,071 1,077 1,078 1,078 1,078 1,079 1,079 1,080 1,081 1,082 1,083 1,084 1,085 1,086 Subtotal: EQUIPMENT: Cost based on 47,359 SF 1,079 1,070 1,071 1,071 1,071 1,072 1,073 1,074 1,075 1,076 1,077 1,078 1,												
1,055 1,057 1,058 1,059 1,060 1,061 1,062 1,063 1,064 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,067 1,068 1,069 1,070 1,071 1,072 1,073 1,073 1,073 1,073 1,074 1,075 1,076 1,076 1,077 1,077 1,077 1,077 1,077 1,077 1,077 1,077 1,078 1,078 1,079												
1,056 1,057 1,058 1,059 1,059 1,060 1,061 1,062 1,063 1,064 1,065 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,066 1,067 1,068 1,069 1,070 1,071 1,071 1,072 1,073 1,074 1,075 1,076 1,076 1,077 1,077 1,077 1,077 1,078 1,079 1,079 1,079 1,080 1,081 1,082 1,083 1,084 1,085 1,086		Not Used										
1,057												
1,058												
Average Unit Price for this division is: \$0.00 per SF												1
Average Labor Rate for this division: \$0.00 per hour												
1,061 1,062 FURNISHINGS Not Used												
1,062 1,063 1,066 1,066 1,066 1,066 1,068 1,069 1,069 1,070 1,070 1,071 1,072 1,073 1,074 1,075 1,075 1,076 1,077 1,077 1,077 1,077 1,078 1,078 1,079 1,079 1,070 1,071 1,072 1,075 1,076 1,077 1,077 1,077 1,078 1,078 1,078 1,079 1,080 1,081 1,082 1,083 1,084 1,085 Subtotal: SPECIAL CONSTRUCTION: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division: \$0.00 per hour CONVEYING Not Used Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division: \$0.00 per hour Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF		Average Labor Rate for this	aivision: \$0.00 per n	our								
1,063 1,064 1,065 1,066 1,067 1,068 1,069 1,069 1,070 1,070 1,071 1,071 1,071 1,072 1,073 1,074 1,075 1,076 1,077 1,077 1,077 1,077 1,078 1,079 1,079 1,070 1,070 1,071 1,071 1,071 1,071 1,075 1,076 1,077 1,077 1,078 1,078 1,078 1,079 1,080 1,081 1,082 1,083 1,084 1,084 1,085 1,086 Subtotal: SPECIAL CONSTRUCTION: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per hour CONVEYING Not Used Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division: \$0.00 per hour Subtotal: CONVEYING Not Used Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division: \$0.00 per SF Average Unit Price for this division: \$0.00 per SF		FURNISHINGS										
1,064 1,065 1,067 1,068 Subtotal: FURNISHINGS: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour SPECIAL CONSTRUCTION Not Used Subtotal: SPECIAL CONSTRUCTION: Cost based on 47,359 SF Average Unit Price for this division: \$0.00 per hour Subtotal: SPECIAL CONSTRUCTION: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division: \$0.00 per hour CONVEYING Not Used Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division: \$0.00 per hour												
1,065 1,066 1,067 1,068 1,069 1,069 1,070 1,071 1,072 1,073 1,074 1,075 1,076 1,077 1,077 1,078 1,079 1,079 1,079 1,079 1,079 1,079 1,079 1,079 1,079 1,079 1,079 1,080 1,081 1,082 1,083 1,084 1,085 1,086 1,087 1,087 1,087 1,087 1,088		Not Used										
1,066 1,067 1,068 1,068 1,068 1,069 1,070 1,071 1,071 1,072 1,072 1,073 1,074 1,075 1,076 1,077 1,077 1,077 1,077 1,077 1,078 1,079 1,079 1,080 1,081 1,082 1,083 1,084 1,085 1,086 1,086 Subtotal: FURNISHINGS: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour CONVEYING Not Used Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division: \$0.00 per SF Average Unit Price for this division: \$0.00 per SF Average Unit Price for this division: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF												
1,067 1,068 1,069 1,069 1,070 1,071 1,072 1,073 1,074 1,075 1,076 1,077 1,077 1,077 1,077 1,077 1,077 1,077 1,078 1,079 1,080												
Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour 1,070		Subtotal: ELIPNISHINGS: C	act bacad on 17 350) SE								
1,069 1,070 1,071 1,071 1,072 1,073 1,074 1,075 1,076 1,077 1,078 1,078 1,079 1,080 1,080 1,081 1,082 1,083 1,084 1,085 1,086 1,086 1,086 1,086 1,086 1,087 1,088												
1,070 1,071 1,072 Not Used 1,073 1,074 1,075 1,076 1,077 1,077 1,078 1,078 1,078 1,079 1,080 CONVEYING Not Used 1,081 1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF												
1,071 1,072 1,073 1,074 1,075 1,076 1,076 1,077 1,077 1,077 1,078 1,078 1,079 1,080 1,081 1,081 1,082 1,083 1,084 1,085 1,086 1,086 1,086 1,086 1,086 1,086 1,087 1,088		/worage Labor rate for time	411010111									
1,072 1,073 1,074 1,075 1,076 1,077 1,077 1,077 1,078 1,079 1,080 1,081 1,081 1,082 1,083 1,084 1,085 1,086 Subtotal: SPECIAL CONSTRUCTION: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour CONVEYING Not Used Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF		SPECIAL CONSTRUCTION										
1,073 1,074 1,075 1,076 1,077 Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour 1,079 1,080 1,081 1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per hour Subtotal: SPECIAL CONSTRUCTION: Cost based on 47,359 SF Average Labor Rate for this division: \$0.00 per hour Subtotal: CONVEYING Average Unit Price for this division is: \$0.00 per SF Average Unit Price for this division is: \$0.00 per SF												
1,074 1,075 1,076 1,077 Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour 1,079 1,080 1,081 1,082 1,083 1,084 1,085 Subtotal: SPECIAL CONSTRUCTION: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per hour CONVEYING Not Used Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF												
1,075 1,076 1,077 Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour 1,079 1,080 1,081 1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per hour												
1,076 1,077 Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour 1,079 1,080 1,081 1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per hour												
Average Unit Price for this division is: \$0.00 per SF Average Labor Rate for this division: \$0.00 per hour 1,079 1,080 CONVEYING 1,081 1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF		Subtotal: SPECIAL CONSTR	RUCTION: Cost bas	ed on 47,359) SF							
1,079 1,080												
1,080 CONVEYING 1,081 Not Used 1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF 1,086 Average Unit Price for this division is: \$0.00 per SF	1,078	Average Labor Rate for this	division: \$0.00 per h	our								
1,081 Not Used 1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF 1,086 Average Unit Price for this division is: \$0.00 per SF	1,079	<u> </u>	·									
1,082 1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF Average Unit Price for this division is: \$0.00 per SF	1,080	CONVEYING										
1,083 1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF 1,086 Average Unit Price for this division is: \$0.00 per SF	1,081	Not Used										
1,084 1,085 Subtotal: CONVEYING: Cost based on 47,359 SF 1,086 Average Unit Price for this division is: \$0.00 per SF												
1,085 Subtotal: CONVEYING: Cost based on 47,359 SF 1,086 Average Unit Price for this division is: \$0.00 per SF												
1,086 Average Unit Price for this division is: \$0.00 per SF	1,084											
1,087 Average Labor Rate for this division: \$0.00 per hour												
	1,087	Average Labor Rate for this	division: \$0.00 per h	our								

Line				Material C		Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1 000											
1,088 1,089	MECHANICAL										
1,069	15010 General Conditions										
1,090	Submittals	40	HRS	\$5.00	\$200	1.000	40.0	\$1,470		\$1,670	\$1,670
1,091	Mob & Demob	1	LS	\$2,000.00	\$2,000	64.000	64.0	\$3,226		\$5,226	\$5,226
1,092	Tests, Inspections	1	LS	\$100.00	\$2,000 \$100	28.571	28.6	\$3,220 \$1,441		\$1,541	\$3,220 \$1,541
	Supervision	28	WEEKS	\$100.00	\$100		560.0	\$1,441 \$28,000	¢1 750	\$29,750	\$1,541 \$29,750
1,094	Materials Control	28	WEEKS			20.000 20.000	560.0	\$26,000 \$11,760	\$1,750 \$1,925		\$29,750 \$13,685
1,095		∠o 1		¢4 000 00	£1 000	40.000	40.0		φ1,925	\$13,685	
1,096	Temporary Connections	1	LS	\$1,000.00	\$1,000 \$7,000	40.000	40.0	\$2,016		\$3,016	\$3,016
1,097	Bond and Insurance (1%)		LS	\$7,600.00	\$7,600				#2.000	\$7,600	\$7,600
1,098	Tools and Equipment (1% of Labor)	1	LS						\$3,000	\$3,000	\$3,000
1,099											
1,100	15260 Piping Insulation										
1,101	Fiberglass Pipe Insulation, 1" Thick W/ASJ										
1,102	Domestic Hot/Cold Water										
1,103	3/4" Pipe, Fittings	150	LF	\$1.50	\$225	0.070	10.5	\$553		\$778	\$1,011
1,104	1" Pipe, Fittings	150	LF	\$1.53	\$230	0.073	11.0	\$579		\$809	\$1,052
1,105	1-1/4" - 1/2" Pipe, Fittings	150	LF	\$1.86	\$279	0.076	11.4	\$600		\$879	\$1,143
1,106	Hydronic										
1,107	3/4" Pipe, Fittings	330	LF	\$1.50	\$495	0.070	23.1	\$1,216		\$1,711	\$2,224
1,108	1" Pipe, Fittings	220	LF	\$1.53	\$337	0.073	16.1	\$848		\$1,185	\$1,541
1,109	1-1/4" - 1-1/2" Pipe, Fittings	220	LF	\$1.86	\$409	0.076	16.7	\$879		\$1,288	\$1,674
1,110	2" Pipe, Fittings	220	LF	\$2.03	\$447	0.080	17.6	\$927		\$1,374	\$1,786
1,111	2-1/2" - 3" Pipe, Fittings	220	LF	\$2.53	\$557	0.089	19.6	\$1,032		\$1,589	\$2,066
1,112				•	-			. ,		. ,	
1,113	15280 Equipment Insulation										
1,114	Glass Fiber, Flexible										
1,115	HX, Air Separators, Exp Tanks: 1-1/2" Thk	200	SF	\$0.37	\$74	0.050	10.0	\$527		\$601	\$781
1,116											
1,117											
1,118											
1,119											
1,120											

Construction Cost Estimate - Alternative II
Conceptual Estimate
November 3, 2004

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,121											
1,121 1,122	15290 Ductwork Insulation										
1,122	Glass Fiber, Flexible Ductwrap, .75										
1,120	Lb, FSK										
1,124	1" Thick (Typ For E/A Ducts,	200	SF	\$0.32	\$64	0.046	9.2	\$484		\$548	\$712
.,	Round)	200	O.	Ψ0.02	Ψ0.	0.010	0.2	Ψ.σ.		φο.ο	Ψ
1,125											
1,126	Glass Fiber, Fire Resistant Liner, 1-										
	1/2 Lb										
1,127	1" Thick (Typ For S/A Ducts,	12,980	SF	\$0.46	\$5,971	0.046	597.1	\$31,441		\$37,412	\$48,636
	Round)										
1,128											
1,129	Glass Fiber, Rigid, W/FRK										
	(Ductboard)									.	
1,130	2" Thick (Typ For O/A Ducts,	200	SF	\$2.36	\$472	0.123	24.6	\$1,295		\$1,767	\$2,297
4 404	Rect)	200	0=	# 0.00	# 00.4	0.404	00.0	0.4.4.4		00.045	# 0.000
1,131	4" Thick (Typ For Very Cold O/A	200	SF	\$3.02	\$604	0.134	26.8	\$1,411		\$2,015	\$2,620
1,132	Ducts, Rect)										
1,132	Finishes: Glass Cloth, Pasted On	400	SF	\$2.33	\$932	0.094	37.6	\$1,980		\$2,912	\$3,786
1,134	Fillishes. Glass Cloth, Fasted On	400	Si	φ2.33	φ932	0.094	37.0	φ1,900		ΨΖ,91Ζ	φ3,7 00
1,135	15330 Fire Protection Systems										
1,136	Wet Pipe Sprinkler Riser	1	EA	\$2,500.00	\$2,500	48.000	48.0	\$2,450		\$4,950	\$6,188
1,137	Dry Pipe Sprinkler Riser	1	EA	\$4,000.00	\$4,000	48.000	48.0	\$2,450		\$6,450	\$8,063
1,138	Ord. Hazard Wet Pipe Sprinkler	32,359	SF	\$0.80	\$25,887	0.038	1,229.6	\$62,772		\$88,659	\$110,824
,	System	,		•	. ,		,	. ,			, ,
1,139	Ord. Hazard Dry Pipe Sprinkler	15,000	SF	\$0.88	\$13,200	0.042	630.0	\$32,162		\$45,362	\$56,703
	System										
1,140											
1,141	15400 Plumbing Piping										
1,142	Domestic HW/CW Supply, Type L										
	Copper			A = 5 =	***			**		*	.
1,143	3/4" Pipe, Fittings	150	LF	\$2.07	\$311	0.105	15.8	\$807		\$1,118	\$1,398
1,144	1" Pipe, Fittings	150	LF	\$2.70	\$405	0.118	17.7	\$904		\$1,309	\$1,636
1,145	1-1/4" - 1-1/2" Pipe, Fittings	150	LF	\$4.25	\$638	0.154	23.1	\$1,179		\$1,817	\$2,271
1,146	Sterilization	1	LS	\$25.00	\$25	12.000	12.0	\$613		\$638	\$798

Ft Rich Fish Hatchery Alternative II (Opt B) Concept Est R5.xls / 11/3/2004 / 10:52 AM

Estimate Page 34 of 60

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,147											
1,147	15483 Fuel Gas Systems										
1,149	Connect To Service, Valves, Pipe,	1	LS	\$1,000.00	\$1,000	8.000	8.0	\$408		\$1,408	\$1,760
1,110	Fittings	•	20	ψ1,000.00	Ψ1,000	0.000	0.0	φισσ		Ψ1,100	Ψ1,700
1,150	Sched 40 Blk Steel										
1,151	1" Pipe, Fittings	200	LF	\$2.63	\$526	0.068	13.6	\$694		\$1,220	\$1,525
1,152	1-1/4" - 1-1/2" Pipe, Fittings	200	LF	\$3.57	\$714	0.090	18.0	\$919		\$1,633	\$2,041
1,153	2" Pipe, Fittings	200	LF	\$4.72	\$944	0.113	22.6	\$1,154		\$2,098	\$2,623
1,154	3" Pipe, Fittings	200	LF	\$9.52	\$1,904	0.167	33.4	\$1,705		\$3,609	\$4,511
1,155											
1,156	15500 Hydronic Piping & Equipment										
1,157	Pipe & Fittings, Copper Type L										
1,158	Heating System Piping, Copper										
	Type L										
1,159	3/4" Pipe, Fittings	330	LF	\$2.07	\$683	0.105	34.7	\$1,771		\$2,454	\$3,068
1,160	1" Pipe, Fittings	220	LF	\$2.70	\$594	0.118	26.0	\$1,327		\$1,921	\$2,401
1,161	1-1/4" - 1-1/2" Pipe, Fittings	220	LF	\$4.25	\$935	0.154	33.9	\$1,731		\$2,666	\$3,333
1,162	2" Pipe, Fittings	220	LF	\$6.35	\$1,397	0.190	41.8	\$2,134		\$3,531	\$4,414
1,163	2-1/2" - 3" Pipe, Fittings	220	LF	\$12.65	\$2,783	0.286	62.9	\$3,211		\$5,994	\$7,493
1,164											
1,165	Hydronic Specialties										
1,166	Auto Air Vent, High Capacity	1	EA	\$575.00	\$575	1.330	1.3	\$66		\$641	\$801
1,167	Air Separator	1	EA	\$1,200.00	\$1,200					\$1,200	\$1,500
1,168	Expansion Tanks										
1,169	Diaphragm Type Expansion Tank,	1	EA	\$685.58	\$686	2.000	2.0	\$102		\$788	\$985
	33 Gal										
1,170	DHW Expansion Tank	1	EA	\$65.00	\$65	1.000	1.0	\$51		\$116	\$145
1,171	Relief Valve, ASME	2	EA	\$135.00	\$270	2.000	4.0	\$204		\$474	\$593
1,172	Pressure Gauges	4	EA	\$65.00	\$260	0.500	2.0	\$102		\$362	\$453
1,173	Thermometers	6	EA	\$45.00	\$270	0.500	3.0	\$153		\$423	\$529
1,174	Pump, Equipment Flex Connector	4	EA	\$150.00	\$600	1.000	4.0	\$204		\$804	\$1,005
1,175	Glycol System			#050.55	0.55	0.000	0.6	# 000		0.4.4	.
1,176	Mixing Tank	1	EA	\$850.00	\$850	6.000	6.0	\$306		\$1,156	\$1,445
1,177	Propylene Glycol	76	GAL	\$8.00	\$607	0.633	48.0	\$2,450		\$3,057	\$3,821
1,178	Valves, Piping, Feed Reg,	1	LS	\$400.00	\$400	4.000	4.0	\$204		\$604	\$755
	Controls										

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,179											
1,179	15540 HVAC Pumps										
1,180	Main Heating Circ Pump, 150	2	EA	\$2,800.00	\$5,600	8.000	16.0	\$817		\$6,417	\$8,021
	GPM, 1.5 HP										
1,182	AHU Circ Pump, 100 GPM, 1.5 HP	2	EA	\$1,200.00	\$2,400	6.000	12.0	\$613		\$3,013	\$3,766
1,183											
1,184	Cast Iron Boilers										
1,185	Boilers - Cast Iron Oil Fired, 1,275 MBH	2	EA	\$12,300.00	\$24,600	57.143	114.3	\$5,835		\$30,435	\$38,044
1,186	Boiler Trim, Foundation, Specialties	1	LS	\$18,460.00	\$18,460	85.714	85.7	\$4,375		\$22,835	\$28,544
1,187	•										
1,188	Stack and Flue Vents										
1,189	Pressure Stack, 18"	24	LF	\$72.50	\$1,740	0.421	10.1	\$516		\$2,256	\$2,820
1,190	Fittings, 18"	4	EA	\$400.00	\$1,600	0.842	3.4	\$1 7 4		\$1,774	\$2,218
1,191	Roof Support Assy, Penetration,	1	EA	\$480.00	\$480	1.053	1.1	\$56		\$536	\$670
·	Curb							•			
1,192	Stack Cap, Supports	1	EA	\$320.00	\$320	0.562	0.6	\$31		\$351	\$439
1,193											
1,194	Terminal Heat Transfer Units										
1,195	(Typ Assy Includes Fittings, AAV,										
	Ctrl Valve,										
1,196	Isolation Valves, Bal Valve)										
1,197	Unit Heaters, Util & Fish Rearing	6	EA	\$700.00	\$4,200	4.000	24.0	\$1,225		\$5,425	\$6,781
	Areas										
1,198	Cabinet Unit Heaters (Entrances)	2	EA	\$893.00	\$1,786	4.000	8.0	\$408		\$2,194	\$2,743
1,199											
1,200	15800 Air Distribution										
1,201	Component Air Handlers, Incl Mix										
	Box, Coils,										
1,202	Filter Section, Int. Isolation										
1,203	AHU-1: 32,300 CFM	1	EA	\$64,672.00	\$64,672	40.000	40.0	\$2,114		\$66,786	\$83,483
1,204											
1,205	Vent Fans, Utility Sets										
1,206	Mech Room Ventilation, Plenum, Dampers	1	LS	\$1,200.00	\$1,200	6.000	6.0	\$317		\$1,517	\$1,896

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,207											
1,208	Ductwork										
1,209	Low Velocity Duct, Incl Allowance										
1,210	For Waste, Supports and Joints										
1,211	Round Spiral, Galvanized	11,800	LBS	\$1.60	\$18,880	0.075	885.0	\$46,769		\$65,649	\$82,061
1,212	Rectangular, Galvanized	7,100	LBS	\$1.90	\$13,490	0.084	596.4	\$31,517		\$45,007	\$56,259
1,213	3,	,		,	* -,			¥ - ,-		* -,	, ,
1,214	Ductwork Accessories										
1,215	Fire/Smoke Dampers	2	EA	\$350.00	\$700	2.000	4.0	\$211		\$911	\$1,139
1,216	Duct Access Doors	2	EA	\$28.00	\$56	0.750	1.5	\$79		\$135	\$169
1,217	Volume Dampers	50	EA	\$18.00	\$900	0.500	25.0	\$1,321		\$2,221	\$2,776
1,218	r r			•	,			* ,-		* /	¥ , -
1,219	Air Outlets and Inlets: Diffusers,										
, -	Grilles Incl Boots,										
1,220	Mtg Hdwre, Frames, Accessories										
1,221	S/A Diffusers	90	EA	\$45.00	\$4,050	1.000	90.0	\$4,756		\$8,806	\$11,008
1,222	R/A, E/A, Transfer Grilles	7	EA	\$28.00	\$196	0.660	4.6	\$243		\$439	\$549
1,223	Louvers, Fixed Alum Incl.	160	SF	\$40.00	\$6,400	0.050	8.0	\$423		\$6,823	\$8,529
.,	Birdscreen		C .	Ψ.σ.σσ	ψο, .σσ	0.000	0.0	ψ.=0		Ψ0,020	Ψ0,020
1,224											
1,225	15970 Control Systems										
1,226	Control Points	36	PTS	\$700.00	\$24,920					\$24,920	\$34,888
1,227	Common Commo			ψ. σσ.σσ	Ψ= :,σ=σ					Ψ= :,σ=σ	ψο .,σσσ
1,228	15990 Balancing & Testing										
1,229	Balance Hydronic System	1	LS	\$200.00	\$200	4.700	4.7	\$253		\$453	\$634
1,230	Balance Air Systems	1	LS	\$200.00	\$200	54.500	54.5	\$2,931		\$3,131	\$4,383
1,231	Commissioning, Startup	1	LS	\$200.00	\$200	120.000	120.0	\$6,453		\$6,653	\$9,314
1,232	9, Camara			V	4			40,100		¥ 2,222	4 -,
1,233											
1,234											
1,235											
1,236											
1,237											
1,238	Subtotal: MECHANICAL: Cost based	on 47.359	9 SF		\$283,475		6,633.2	\$325,355	\$6,675	\$615,505	\$761,033
1,239	Average Unit Price for this division is:	•			Ţ <u></u>		3,000.2	4020,000	ψο,ο. ο	40.0,000	φ. σ.,σσσ
1,240	Average Labor Rate for this division:	•									
1,270	7.vorage Eabor Mate for tine division.	# 10.00 per	Tioui								

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,241											
1,242	ELECTRICAL										
1,243	16010 Basic Electrical Requirements										
1,244	Field Engineering: Submittals, Shop & Record										
1,245	Dwgs, Operating Instructions, O&M Manuals	40	HRS	\$5.00	\$200	1.000	40.0	\$1,470		\$1,670	\$1,670
1,246	Supervision	8	WEEKS			50.000	400.0	\$20,000	\$500	\$20,500	\$20,500
1,247	Materials Control	8	WEEKS			30.000	240.0	\$5,040	\$550	\$5,590	\$5,590
1,248	Bond and Insurance	1	LS	\$4,100.00	\$4,100					\$4,100	\$4,100
1,249	Tools and Equipment	1	LS						\$1,700	\$1,700	\$1,700
1,250											
1,251	Service & Distribution Systems										
1,252	Service Equipment										
1,253	Transformer	100	KVA	\$27.00	\$2,700	0.120	12.0	\$652		\$3,352	\$4,190
1,254											
1,255	Panelboards										
1,256	Panelboards, 120/208V, 3 Phase, 4 Wire, 225A, MLO, 42 Circuit, W/Breakers	1	EA	\$1,155.00	\$1,155	10.000	10.0	\$543		\$1,698	\$2,123
1,257											
1,258	Feeders & Subfeeds										
1,259	225 Amp: 2-1/2" RGS, 4#250 KCMIL, 1#4	125	LF	\$16.65	\$2,081	0.404	50.5	\$2,742		\$4,823	\$6,029
1,260											
1,261	Grounding	1	LS	\$500.00	\$500					\$500	\$625
1,262	-										
1,263											
1,264											
1,265											
1,266											
1,267											
1,268											
1,269											
1,270											
1,271											

No. Description Qty UNITS Unit Total Units Total Cost Cost Cost W OH & P	Line				Material	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
1,273		Description	Qty	UNITS								
1,273												
1,274												
1,275												
1,276												
1,277 3/4/in. GRS 720			36	EA	\$23.45	\$844	0.250	9.0	\$489		\$1,333	\$1,666
1,278 Add For RGC In Wet Areas 216 LF \$0.50 \$108 0.029 6.3 \$342 \$450 \$563 \$1,279 3,44in. GRS CDNN 72 EA \$0.50 \$36 0.086 6.2 \$337 \$373 \$466 \$1,280 \$3,44in. GRS CPLG 72 EA \$1.39 \$100 \$125 \$1,281 \$3,44in. GRS STRAP 1-H 108 EA \$0.15 \$16 0.030 3.2 \$174 \$190 \$238 \$1,282 \$127 \$141 \$14												
1,279 3,44in, GRS CONN 72 EA \$0.50 \$36 0.086 6.2 \$337 \$373 \$466 1,280 3,44in, GRS CPLG 72 EA \$1.39 \$100 \$125 1,281 3,44in, GRS STRAP 1-H 108 EA \$0.015 \$16 0.030 3.2 \$174 \$190 \$238 1,282 #12 THHN 2,376 LF \$0.09 \$214 0.005 11.9 \$646 \$860 \$1,075 1,283 Utility Box 2-1/2 D 1/2 KO 36 EA \$1.33 \$48 0.220 7.9 \$429 \$477 \$596 1,284 1G SS Receptacle Plate 36 EA \$1.33 \$48 0.220 7.9 \$429 \$477 \$596 1,285 1In, X10 S-Tap Screw 180 EA \$0.02 \$4 0.025 4.5 \$244 \$248 \$310 1,286 1.286 1.286 1.286 1.286 1.286 1,287 1,288 Fractional To 1/4 HP 8 EA \$65.00 \$520 1.000 8.0 \$434 \$954 \$1,193 1,289 Wiring: Shorn, 3,44* EMT 3#10, 1N 240 LF \$1.17 \$281 0.094 22.6 \$1,227 \$1,508 \$1,885 1,290 Starter/Disconnect, AHU 25 HP 1 EA \$850.00 \$850 8.000 8.0 \$434 \$1,224 \$1,605 1,291 1-1/4* RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,293 Wiring: Shornect, Fans15 HP 1 EA \$600.00 \$600 6.00 6.0 \$326 \$926 \$1,158 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.00 40.0 \$2,172 \$5,672 \$7,090 1,294 MCC Structures 1 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg, Batt Wall Pack 40 EA \$17.50 \$7,000 3.000 256.0 \$13,900 \$16,972 \$2,1215 1,305 Hieriot Lighting 1 LS \$5,000.00 \$5,000 23,429 23.4 \$1,271 \$6,271 \$7,839 1,306 Sign Shorned 1 LS \$5,000.00 \$5,000 \$5,000 \$2,429 \$2,420 \$3,420 \$4,4209												
1,280 3/4 in. GRS CPLG												
1,281 3/4in. GRS STRAP 1-H 108 EA \$0.15 \$16 0.030 3.2 \$174 \$190 \$238 1,282 #12 THHN 2,376 LF \$0.09 \$214 0.005 11.9 \$646 \$860 \$1,075 1,283 Utility Box 2-1/2 D 1/2 Ko 36 EA \$1.33 \$48 0.220 7.9 \$429 \$477 \$596 1,284 1G Ss Receptacle Plate 36 EA \$2.50 \$90 0.030 1.1 \$60 \$150 \$188 1,285 1In. X10 S-Tap Screw 180 EA \$0.02 \$4 0.025 \$4.5 \$244 \$248 \$310 1,286 1In. X10 S-Tap Screw 180 EA \$65.00 \$520 1.000 8.0 \$434 \$248 \$31,193 1,286 Fractional To 1/4 HP 8 EA \$65.00 \$520 1.000 8.0 \$434 \$1,264 \$1,605 1,288 Wiring: Nom. 3/4 "EMT 3#10, 1N 240 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>0.086</td><td>6.2</td><td>\$337</td><td></td><td></td><td></td></t<>							0.086	6.2	\$337			
1,282 #12 THHN 2,376 LF \$0.09 \$214 0.005 11.9 \$646 \$860 \$1,075 1,283 Utility Box 2-1/2 D 1/2 Ko 36 EA \$1.33 \$48 0.220 7.9 \$429 \$477 \$596 1,284 1G Ss Receptacle Plate 36 EA \$0.02 \$4 0.025 4.5 \$244 \$248 \$310 1,285 1In. X10 S-Tap Screw 180 EA \$0.02 \$4 0.025 4.5 \$244 \$248 \$310 1,286 16420 Enclosed Controllers Fractional To 1/4 HP 8 EA \$65.00 \$520 1.000 8.0 \$434 \$954 \$1,193 1,287 Fractional To 1/4 HP 8 EA \$65.00 \$520 1.000 8.0 \$434 \$954 \$1,193 1,289 Wiring: Nom. 3/4* EMT 3#10, 1N 240 LF \$1,17 \$281 0.994 22.6 \$1,227 \$1,508 \$1,605 1,290 Starter/Dis	1,280											
1,283 Utility Box 2-1/2 D 1/2 Ko 36 EA \$1.33 \$48 0.220 7.9 \$429 \$477 \$596 1,284 IG Ss Receptacle Plate 36 EA \$2.50 \$90 0.030 1.1 \$60 \$150 \$188 1,285 1ln, X10 S-Tap Screw 180 EA \$0.02 \$4 0.025 4.5 \$244 \$248 \$310 1,286 1,286 1,286 1,286 1,286 1,286 1,286 1,286 1,288 Fractional To 1/4 HP 8 EA \$65.00 \$520 1.000 8.0 \$434 \$954 \$1,193 1,289 Wiring: Nom. 3/4* EMT 3#10, 1N 240 LF \$1.17 \$281 0.094 22.6 \$1,227 \$1,508 \$1,885 1,290 Starter/Disconnect, AHU 25 HP 1 EA \$850.00 \$850 8.000 8.0 \$434 \$1,284 \$1,605 1,291 1-1/4* RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,293 Wiring: 1* RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$501 \$626 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.0 \$2,172 \$5,672 \$7,090 1,295 MCC Structures 1 EA \$560.00 \$10,661 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$560.00 \$600 \$600 \$600 \$600 \$600 \$600 \$600	1,281						0.030		•			
1,284 1G Ss Receptacle Plate 36 EA \$2.50 \$90 0.030 1.1 \$60 \$150 \$188 1,285 1ln. X10 S-Tap Screw 180 EA \$0.02 \$4 0.025 4.5 \$244 \$248 \$310 1,286 1.286 16420 Enclosed Controllers 1,287 1,288 16420 Enclosed Controllers 1,289 Wiring: Nom. 3/4" EMT 3#10, 1N 240 LF \$1.17 \$281 0.094 22.6 \$1,227 \$1,508 \$1,895 1,290 Starter/Disconnect, AHU 25 HP 1 EA \$850.00 \$850 8.000 8.0 \$434 \$954 \$1,193 1,291 11/4" RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,292 Starter/Disconnect, Fans15 HP 1 EA \$600.00 60.00 6.0 \$326 \$926 \$1,158 1,293 Wiring: 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$5672 </td <td></td>												
1,285	1,283	Utility Box 2-1/2 D 1/2 Ko	36		\$1.33	\$48	0.220	7.9	\$429		\$477	\$596
1,286 1,287 1,288 1,288 1,288 1,289 1,289 1,289 1,289 1,290 1,290 1,291 1,291 1,291 1,292 1,292 1,292 1,293 1,290 1,294 1,295 1,299 1,295 1,299 2,298 1,299 2,298 2,349	1,284	1G Ss Receptacle Plate	36	EA	\$2.50	\$90	0.030	1.1	\$60		\$150	\$188
1,287 16420 Enclosed Controllers 1,288 Fractional To 1/4 HP 8 EA \$65.00 \$520 1.000 8.0 \$434 \$954 \$1,193 1,289 Wiring: Nom. 3/4" EMT 3#10, 1N 240 LF \$1.17 \$281 0.094 22.6 \$1,227 \$1,508 \$1,885 1,290 Starter/Disconnect, AHU 25 HP 1 EA \$850.00 \$850 8.00 8.0 \$434 \$1,284 \$1,685 1,291 1-1/4" RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,292 Starter/Disconnect, Fans15 HP 1 EA \$600.00 \$600 6.00 6.0 \$326 \$926 \$1,575 1,292 Mirchgin; 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$567 \$5,672 \$7,090 1,293 Mircip: 1" RGS, 3#4, 1#8 80 LF \$3,500.00 \$3,500 40.000 \$2,172 \$5,672 \$7,090 1,294 MCC Structures 1 EA	1,285	1In. X10 S-Tap Screw	180	EA	\$0.02	\$4	0.025	4.5	\$244		\$248	\$310
1,288 Fractional To 1/4 HP 8 EA \$65.00 \$520 1.000 8.0 \$434 \$954 \$1,193 1,289 Wiring: Nom. 3/4" EMT 3#10, 1N 240 LF \$1.17 \$281 0.094 22.6 \$1,227 \$1,508 \$1,885 1,290 Starter/Disconnect, AHU 25 HP 1 EA \$850.00 8.00 8.0 \$434 \$1,508 \$1,685 1,291 1-1/4" RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,292 Starter/Disconnect, Fans15 HP 1 EA \$600.00 \$600 6.00 6.0 \$326 \$926 \$1,575 1,293 Wiring: 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$501 \$626 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.00 \$2,172 \$5,672 \$7,090 1,294 Interior Lighting 1<	1,286											
1,289 Wiring: Nom. 3/4" EMT 3#10, 1N 240 LF \$1.17 \$281 0.094 22.6 \$1,227 \$1,508 \$1,885 1,290 Starter/Disconnect, AHU 25 HP 1 EA \$850.00 \$850 8.000 8.0 \$434 \$1,284 \$1,605 1,291 1-1/4" RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,292 Starter/Disconnect, Fans15 HP 1 EA \$600.00 \$600 6.00 6.0 \$326 \$9926 \$1,158 1,293 Wiring: 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$501 \$626 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.00 40.0 \$2,172 \$5,672 \$7,090 1,295 Interior Lighting 1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,300 Switches 8 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$27,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,306	1,287	16420 Enclosed Controllers										
1,290 Starter/Disconnect, AHU 25 HP 1 EA \$850.00 \$850 8.000 8.0 \$434 \$1,284 \$1,605 1,291 1-1/4" RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,292 Starter/Disconnect, Fans15 HP 1 EA \$600.00 \$600 6.000 6.0 \$326 \$926 \$1,158 1,293 Wiring: 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$501 \$626 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.0 \$2,172 \$5,672 \$7,090 1,295 Interior Lighting 1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,303 1,304 1,305 1,306 \$1,306	1,288	Fractional To 1/4 HP	8	EA	\$65.00	\$520	1.000	8.0	\$434		\$954	\$1,193
1,291 1-1/4" RGS, 4#4, 1#8 80 LF \$4.75 \$380 0.203 16.2 \$880 \$1,260 \$1,575 1,292 Starter/Disconnect, Fans15 HP 1 EA \$600.00 \$600 6.00 6.0 \$326 \$926 \$1,158 1,293 Wiring: 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$501 \$626 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.0 \$2,172 \$5,672 \$7,090 1,295 1,296 Interior Lighting	1,289	Wiring: Nom. 3/4" EMT 3#10, 1N	240	LF	\$1.17	\$281	0.094	22.6	\$1,227		\$1,508	\$1,885
1,292 Starter/Disconnect, Fans15 HP 1 EA \$600.00 \$600 6.00 6.0 \$326 \$926 \$1,158 1,293 Wiring: 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$501 \$626 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.0 \$2,172 \$5,672 \$7,090 1,295 1,296 Interior Lighting 1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,303 1,304	1,290	Starter/Disconnect, AHU 25 HP	1	EA	\$850.00	\$850	8.000	8.0	\$434		\$1,284	\$1,605
1,293 Wiring: 1" RGS, 3#4, 1#8 80 LF \$1.17 \$94 0.094 7.5 \$407 \$501 \$626 1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.0 \$2,172 \$5,672 \$7,090 1,295 1,296 Interior Lighting 1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 \$witches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,304 1,305 1,306	1,291	1-1/4" RGS, 4#4, 1#8	80	LF	\$4.75	\$380	0.203	16.2	\$880		\$1,260	\$1,575
1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.0 \$2,172 \$5,672 \$7,090 1,295 1,296 Interior Lighting 1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,304 1,305 1,306	1,292	Starter/Disconnect, Fans15 HP	1	EA	\$600.00	\$600	6.000	6.0	\$326		\$926	\$1,158
1,294 MCC Structures 1 EA \$3,500.00 \$3,500 40.000 40.0 \$2,172 \$5,672 \$7,090 1,295 1,296 Interior Lighting 1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,303 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,304 1,305 1,306	1,293	Wiring: 1" RGS, 3#4, 1#8	80	LF	\$1.17	\$94	0.094	7.5	\$407		\$501	\$626
1,295 1,296				EA	\$3,500.00	\$3,500	40.000	40.0			\$5,672	
1,296 Interior Lighting 1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,303 1,304 1,305 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,305 1,306 1,306 1,306 1,306												
1,297 400W Metal Halide 144 EA \$700.00 \$100,601 3.000 431.1 \$23,408 \$124,009 \$155,011 1,298 Exit Sign, LED 11 EA \$56.00 \$638 2.000 22.8 \$1,238 \$1,876 \$2,345 1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,303 1,304 1,305 1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,306 \$1,3		Interior Lighting										
1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,304 1,305 1,306 1,306 1,306 1,306 1,306 1,306 1,300 <td< td=""><td></td><td></td><td>144</td><td>EA</td><td>\$700.00</td><td>\$100,601</td><td>3.000</td><td>431.1</td><td>\$23,408</td><td></td><td>\$124,009</td><td>\$155,011</td></td<>			144	EA	\$700.00	\$100,601	3.000	431.1	\$23,408		\$124,009	\$155,011
1,299 Emerg. Batt Wall Pack 40 EA \$175.00 \$7,000 3.000 120.0 \$6,516 \$13,516 \$16,895 1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,304 1,305 1,306 1,306 1,306 1,306 1,300 <td< td=""><td>1,298</td><td>Exit Sign, LED</td><td>11</td><td>EA</td><td>\$56.00</td><td>\$638</td><td>2.000</td><td>22.8</td><td>\$1,238</td><td></td><td>\$1,876</td><td>\$2,345</td></td<>	1,298	Exit Sign, LED	11	EA	\$56.00	\$638	2.000	22.8	\$1,238		\$1,876	\$2,345
1,300 Switches 8 EA \$17.81 \$137 0.529 4.1 \$223 \$360 \$450 1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,304 1,305 1,306 \$1,3			40	EA			3.000					
1,301 Wiring: 3/4" Cond, 3-#12, Gnd 3,200 LF \$0.96 \$3,072 0.080 256.0 \$13,900 \$16,972 \$21,215 1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,304 1,305 1,306												
1,302 Lighting Controls 1 LS \$5,000.00 \$5,000 23.429 23.4 \$1,271 \$6,271 \$7,839 1,303 1,304 1,305 1,306		Wiring: 3/4" Cond, 3-#12, Gnd										
1,303 1,304 1,305 1,306		•										
1,304 1,305 1,306		3 - 3			, -,	* - ,			,		+ - /	* ,
1,305 1,306												
1,306												

Line				Material C		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,308											
1,309	Exterior Lighting										
1,310	Wall Mtd 70 W HPS	10	EA	\$180.00	\$1,800	2.000	20.0	\$1,086		\$2,886	\$3,608
1,311	Wall Mtd 150 W HPS	14	EA	\$385.00	\$5,544	2.500	36.0	\$1,955		\$7,499	\$9,374
1,312	Wiring: 3/4" Cond, 3-#12, Gnd	854	LF	\$0.96	\$820	0.080	68.3	\$3,709		\$4,529	\$5,661
1,313	g. c,			40.00	**			42,123		¥ 1,0=0	40,00
1,314	Fire Alarm & Detection	32,336	SF	\$2.00	\$64,672					\$64,672	\$80,840
1,315		5_,555		+	¥ • 1, • 1 =					4 0.,0.	¥ 00,010
1,316	Misc Special Systems	32,336	SF	\$1.00	\$32,336					\$32,336	\$40,420
1,317		, , , , , ,		•	, - ,					* - ,	* -,
1,318											
1,319											
1,320											
1,321											
1,322											
1,323											
1,324											
1,325											
1,326											
1,327											
1,328											
1,329											
1,330											
1,331											
1,332											
1,333											
1,334											
1,335											
1,336											
1,337											
1,338											
1,339											
1,340											
1,341	Subtotal: ELECTRICAL: Cost base	ed on 47,359	SF		\$240,545		1,921.4	\$93,918	\$2,750	\$337,213	\$413,129
1,342	Average Unit Price for this division i						•	•	•	•	•
1,343	Average Labor Rate for this division										

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 0 4 4											
1,344	NEW PULL DING OVER BROOKSTOCK	40.005	C.E.								
1,345	NEW BUILDING OVER BROODSTOCK CONCRETE	10,905	SF								
1,347		419	LF								
1,348	Footings - Perimeter Footing 24"x1; Forms	698	SF	\$0.85	\$594	0.100	69.8	\$3,588		\$4,182	\$4,182
1,349	Re-steel	2,786	LBS	\$0.83 \$0.43	\$1,198	0.100	75.2	\$3,865		\$5,063	\$5,063
1,350	Concrete, 3000 PSI, Pumped	2,760	CY	\$100.00	\$2,716	1.286	34.9	\$3,003 \$1,794	\$543	\$5,053	\$5,003 \$5,053
1,550	Placement	21	O1	Ψ100.00	Ψ2,7 10	1.200	34.3	Ψ1,734	ψ040	ψ5,055	ψ5,055
1,351	1 lacement										
1,352	Footings - Columns 5'0"x5'0", Avg.	20	EA								
1,353	Forms	600	SF	\$1.06	\$636	0.125	75.0	\$3,855		\$4,491	\$4,491
1,354	Re-steel	4,272	LBS	\$0.43	\$1,837	0.027	115.3	\$5,926		\$7,763	\$7,763
1,355	Concrete, 3000 PSI, Pumped	29	CY	\$100.00	\$2,917	1.286	37.5	\$1,928	\$583	\$5,428	\$5,428
,,,,,,,	Placement			********	-			¥ 1,5=5	4 000	4 0,100	¥-, :
1,356											
1,357	Foundation Walls 6'	419	LF								
1,358	Forms	3,352	SF	\$0.85	\$2,849	0.100	335.2	\$17,229		\$20,078	\$20,078
1,359	Re-steel	10,056	LBS	\$0.43	\$4,324	0.027	271.5	\$13,955		\$18,279	\$18,279
1,360	Concrete, 3000 PSI, Pumped	44	CY	\$100.00	\$4,367	1.286	56.2	\$2,889	\$873	\$8,129	\$8,129
	Placement										
1,361											
1,362											
1,363											
1,364											
1,365											
1,366											
1,367	Subtotal: CONCRETE: Cost based or				\$21,438		1,070.6	\$55,029	\$2,000	\$78,467	\$78,466
1,368	Average Unit Price for this division is:	•									
1,369	Average Labor Rate for this division: \$	551.40 per	hour								
1,370											
1,371	MASONRY										
1,372	Not Used										
1,373											1
1,374	Subtotal: MASONRY: Cost based on										
1,375	Average Unit Price for this division is:										
1,376	Average Labor Rate for this division: \$	60.00 per h	nour								

				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
'7 '8 '9	METALS Miscellaneous Metals										
0 1 2 3 4 5	Misc Metals	10,905	SF	\$0.05	\$545	0.001	10.9	\$601		\$1,146	\$1,375
	Subtotal: METALS: Cost base	nd on 47 350 SE			\$545		10.9	\$601		\$1,146	\$1,37
6 7 8	Average Unit Price for this divi Average Labor Rate for this di	ision is: \$0.03 per			φ040		10.9	φοστ		φ1,140	\$1,370
2	Not Used										
)3)4)5)6	Subtotal: WOOD AND PLASTI Average Unit Price for this divi Average Labor Rate for this di	ision is: \$0.00 per vision: \$0.00 per h	SF								
3 4 5 6 7	Subtotal: WOOD AND PLASTI Average Unit Price for this divi Average Labor Rate for this di	ision is: \$0.00 per vision: \$0.00 per h	SF								
3 4 5 6 7 8	Subtotal: WOOD AND PLASTI Average Unit Price for this divi Average Labor Rate for this di	ision is: \$0.00 per vision: \$0.00 per h	SF nour	\$2.00	\$838	0.040	16.8	\$902		\$1,740	\$2,088
3 4 5 6 7 8 9	Subtotal: WOOD AND PLASTI Average Unit Price for this divi Average Labor Rate for this di THERMAL & MOISTURE PROTE Flashing & Sheet Metal	ision is: \$0.00 per vision: \$0.00 per h	SF nour	\$2.00 \$2.00	\$838 \$419	0.040 0.040	16.8 8.4	\$902 \$451		\$1,740 \$870	\$2,088 \$1,044
3 4 5	Subtotal: WOOD AND PLASTI Average Unit Price for this divi Average Labor Rate for this di THERMAL & MOISTURE PROTE Flashing & Sheet Metal Base Flashing	ision is: \$0.00 per vision: \$0.00 per h	SF nour LF	·							

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 440											
1,413	DOORS AND WINDOWS										
1,414 1,415											
	Steel Doors & Frames HM Insulated 3'0"x7'0"	4	EA	¢200.00	¢4 200	3.000	12.0	\$617		¢4 047	\$1,817
1,416 1,417	HM Insulated 3'0 x7'0 HM Insulated 3'0"x7'0" PR	4	PR	\$300.00 \$600.00	\$1,200 \$2,400	5.000	20.0	\$1,028		\$1,817 \$3,428	\$1,617 \$3,428
	Insul. HM Frame	8	EA	\$170.00			16.0	\$1,026 \$822			
1,418 1,419	insui. Hivi Frame	0	EA	\$170.00	\$1,360	2.000	16.0	Φ 0∠∠		\$2,182	\$2,182
1,420	Overhead Doors										
1,421	Insulated Metal Overhead Door,	4	EA	\$3,360.00	\$13,440	12.000	48.0	\$2,289		\$15,729	\$18,088
	12'0"x14'0"	4		. ,	. ,	12.000	46.0	Φ2,209			
1,422	Motor Operators	4	EA	\$500.00	\$2,000					\$2,000	\$2,300
1,423											
1,424	Windows										
1,425	Alum Storefront Windows	629	SF	\$38.00	\$23,883	0.143	89.9	\$4,621		\$28,504	\$28,504
1,426											
1,427	Finish Hardware										
1,428	Ext Hardware Set	8	EA	\$600.00	\$4,800	3.000	24.0	\$1,234		\$6,034	\$6,034
1,429											
1,430											
1,431											
1,432	Subtotal: DOORS AND WINDOWS: (SF	\$49,083		209.9	\$10,611		\$59,694	\$62,353
1,433	Average Unit Price for this division is:										
1,434	Average Labor Rate for this division:	\$50.55 per	hour								
1,435											
1,436	FINISHES										
1,437	Not Used										
1,438	<u>-</u>										1
1,439	Subtotal: FINISHES: Cost based on										
1,440	Average Unit Price for this division is:	•									
1,441	Average Labor Rate for this division:	\$0.00 per h	our								
1,442											
1,443	SPECIALTIES										
1,444	Not Used										
1,445	Subtotal: SPECIALTIES: Cost based	•									
1,446	Average Unit Price for this division is:	•									
1,447	Average Labor Rate for this division:	ֆՍ.ՍՍ per h	our								

Line				Material	Costs	Labor Ho	ours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,448											
1,449	EQUIPMENT										
1,450	Not Used										
1,451											
1,452											
1,453 1,454	Subtotal: EQUIPMENT: Cos	4 hazad an 47 250 6	<u>`</u>								
1,454 1,455	Average Unit Price for this of										
1,456	Average Labor Rate for this										
1,457	Average Labor Mate for this	ulvision. wo.oo per n	Oui								
1,458	FURNISHINGS										
1,459	Not Used										
1,460	1101 0000										
1,461											
1,462											
1,463	Subtotal: FURNISHINGS: C	ost based on 47,359) SF								
1,464	Average Unit Price for this of	livision is: \$0.00 per	SF								
1,465	Average Labor Rate for this	division: \$0.00 per h	our								
1,466											
1,467	SPECIAL CONSTRUCTION										
1,468	None										
1,469											
1,470											
1,471	<u> </u>										
1,472	Subtotal: SPECIAL CONSTR) SF							
1,473	Average Unit Price for this of										
1,474	Average Labor Rate for this	division: \$0.00 per n	our								
1,475 1,476	CONVEYING										
1,477	CONVEYING Not Used										
1,477	Not used										
1,478											
1,479											
1,481	Subtotal: CONVEYING: Cos	st based on 47 359 9	SF.								1
1,482	Average Unit Price for this of										
1,483	Average Labor Rate for this										
,		+ · · ·									

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,484											
1,485	MECHANICAL										
1,486	15010 General Conditions										
1,487	Submittals	40	HRS	\$5.00	\$200	1.000	40.0	\$1,470		\$1,670	\$1,670
1,488	Mob & Demob	1	LS	\$1,500.00	\$1,500	48.000	48.0	\$2,419		\$3,919	\$3,919
1,489	Supervision	26	WEEKS			20.000	520.0	\$26,000	\$1,625	\$27,625	\$27,625
1,490	Materials Control	26	WEEKS			20.000	520.0	\$10,920	\$1,788	\$12,708	\$12,708
1,491	Temporary Connections	1	LS	\$1,000.00	\$1,000	40.000	40.0	\$2,016		\$3,016	\$3,016
1,492	Bond and Insurance (1%)	1	LS	\$6,800.00	\$6,800					\$6,800	\$6,800
1,493	Tools and Equipment (1% of Labor)	1	LS						\$2,700	\$2,700	\$2,700
1,494	,										
1,495	15260 Piping Insulation										
1,496	Fiberglass Pipe Insulation, 1" Thick W/ASJ										
1,497	Domestic Hot/Cold Water										
1,498	3/4" Pipe, Fittings	150	LF	\$1.50	\$225	0.070	10.5	\$553		\$778	\$1,011
1,499	1" Pipe, Fittings	150	LF	\$1.53	\$230	0.073	11.0	\$579		\$809	\$1,052
1,500	1-1/4" - 1/2" Pipe, Fittings	150	LF	\$1.86	\$279	0.076	11.4	\$600		\$879	\$1,143
1,501	Hydronic										
1,502	3/4" Pipe, Fittings	150	LF	\$1.50	\$225	0.070	10.5	\$553		\$778	\$1,011
1,503	1" Pipe, Fittings	150	LF	\$1.53	\$230	0.073	11.0	\$579		\$809	\$1,052
1,504	1-1/4" - 1-1/2" Pipe, Fittings	150	LF	\$1.86	\$279	0.076	11.4	\$600		\$879	\$1,143
1,505											
1,506	15280 Equipment Insulation										
1,507	Glass Fiber, Flexible										
1,508	HX, Air Separators, Exp Tanks: 1-1/2" Thk	200	SF	\$0.37	\$74	0.050	10.0	\$527		\$601	\$781
1,509											
1,510											
1,511											
1,512											
1,513											
1,514											
1,515											
1,516											

Construction Cost Estimate - Alternative II
Conceptual Estimate
November 3, 2004

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 547											
1,517 1,518	15290 Ductwork Insulation										
1,516	Glass Fiber, Flexible Ductwrap, .75										
1,519	Lb, FSK										
1,520	1" Thick (Typ For E/A Ducts,	200	SF	\$0.32	\$64	0.046	9.2	\$484		\$548	\$712
1,020	Round)	200	O.	Ψ0.02	ΨΟΙ	0.010	0.2	φισι		φοιο	Ψ/ 12
1,521	,										
1,522	Glass Fiber, Fire Resistant Liner, 1-										
,	1/2 Lb										
1,523	1" Thick (Typ For S/A Ducts,	12,980	SF	\$0.46	\$5,971	0.046	597.1	\$31,441		\$37,412	\$48,636
	Round)										
1,524											
1,525	Glass Fiber, Rigid, W/FRK										
	(Ductboard)			•							
1,526	2" Thick (Typ For O/A Ducts,	200	SF	\$2.36	\$472	0.123	24.6	\$1,295		\$1,767	\$2,297
	Rect)									•	
1,527	4" Thick (Typ For Very Cold O/A	200	SF	\$3.02	\$604	0.134	26.8	\$1,411		\$2,015	\$2,620
4.500	Ducts, Rect)										
1,528 1,529	Finishes: Glass Cloth, Pasted On	400	SF	\$2.33	\$932	0.094	37.6	\$1,980		\$2,912	\$3,786
1,529	Finishes. Glass Cloth, Pasted On	400	SF	Φ 2.33	Φ93 2	0.094	37.0	ф1,960		\$2,912	Ф3,700
1,530	15330 Fire Protection Systems										
1,532	Wet Pipe Sprinkler Riser	1	EA	\$2,500.00	\$2,500	48.000	48.0	\$2,450		\$4,950	\$6,188
1,533	Dry Pipe Sprinkler Riser	1	EA	\$4,000.00	\$4,000	48.000	48.0	\$2,450		\$6,450	\$8,063
1,534	Ord. Hazard Wet Pipe Sprinkler	32,359	SF	\$0.80	\$25,887	0.038	1,229.6	\$62,772		\$88,659	\$110,824
.,	System	,		45.55	4 _0,000		.,	¥,· · -		+00,000	4 · · · · 1 · · · · · · · · · · · · · · · · · · ·
1,535	Ord. Hazard Dry Pipe Sprinkler	15,000	SF	\$0.88	\$13,200	0.042	630.0	\$32,162		\$45,362	\$56,703
	System										
1,536											
1,537	15400 Plumbing Piping										
1,538	Domestic HW/CW Supply, Type L										
	Copper										
1,539	3/4" Pipe, Fittings	150	LF	\$2.07	\$311	0.105	15.8	\$807		\$1,118	\$1,398
1,540	1" Pipe, Fittings	150	LF	\$2.70	\$405	0.118	17.7	\$904		\$1,309	\$1,636
1,541	1-1/4" - 1-1/2" Pipe, Fittings	150	LF	\$4.25	\$638	0.154	23.1	\$1,179		\$1,817	\$2,271
1,542	Sterilization	1	LS	\$25.00	\$25	12.000	12.0	\$613		\$638	\$798

Ft Rich Fish Hatchery Alternative II (Opt B) Concept Est R5.xls / 11/3/2004 / 10:52 AM

Estimate Page 46 of 60

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1.540											
1,543	AFA00 Firel Con Createring										
1,544	15483 Fuel Gas Systems	1	LS	#4 000 00	#4.000	0.000	0.0	#400		¢4 400	#4 700
1,545	Connect To Service, Valves, Pipe, Fittings	1	LS	\$1,000.00	\$1,000	8.000	8.0	\$408		\$1,408	\$1,760
1,546	Sched 40 Blk Steel										
1,547	1" Pipe, Fittings	200	LF	\$2.63	\$526	0.068	13.6	\$694		\$1,220	\$1,525
1,548	1-1/4" - 1-1/2" Pipe, Fittings	200	LF	\$3.57	\$714	0.090	18.0	\$919		\$1,633	\$2,041
1,549	2" Pipe, Fittings	200	LF	\$4.72	\$944	0.113	22.6	\$1,154		\$2,098	\$2,623
1,550	3" Pipe, Fittings	200	LF	\$9.52	\$1,904	0.167	33.4	\$1,705		\$3,609	\$4,511
1,551											
1,552	15500 Hydronic Piping & Equipment										
1,553	Pipe & Fittings, Copper Type L										
1,554	Heating System Piping, Copper										
	Type L										
1,555	3/4" Pipe, Fittings	150	LF	\$2.07	\$311	0.105	15.8	\$807		\$1,118	\$1,398
1,556	1" Pipe, Fittings	150	LF	\$2.70	\$405	0.118	17.7	\$904		\$1,309	\$1,636
1,557	1-1/4" - 1-1/2" Pipe, Fittings	150	LF	\$4.25	\$638	0.154	23.1	\$1,179		\$1,817	\$2,271
1,558											
1,559	Hydronic Specialties										
1,560	Auto Air Vent, High Capacity	1	EA	\$575.00	\$575	1.330	1.3	\$66		\$641	\$801
1,561	Air Separator	1	EA	\$1,200.00	\$1,200					\$1,200	\$1,500
1,562	Expansion Tanks										
1,563	Diaphragm Type Expansion Tank, 33 Gal	1	EA	\$685.58	\$686	2.000	2.0	\$102		\$788	\$985
4 504		4	EA	CC 00		4 000	4.0	C		6440	Ф4.4 <i>Г</i>
1,564	DHW Expansion Tank	1	EA EA	\$65.00	\$65 \$270	1.000	1.0	\$51		\$116	\$145 \$503
1,565	Relief Valve, ASME	2	EA EA	\$135.00	\$270	2.000	4.0	\$204		\$474	\$593
1,566	Pressure Gauges	4		\$65.00	\$260	0.500	2.0	\$102		\$362	\$453 \$500
1,567	Thermometers	6	EA	\$45.00	\$270	0.500	3.0	\$153		\$423	\$529
1,568	Pump, Equipment Flex Connector	4	EA	\$150.00	\$600	1.000	4.0	\$204		\$804	\$1,005
1,569	Glycol System			#050.00	0050		0.0	# 000		04.450	0.4.4.5
1,570	Mixing Tank	1	EA	\$850.00	\$850	6.000	6.0	\$306		\$1,156	\$1,445
1,571	Propylene Glycol	76	GAL	\$8.00	\$607	0.633	48.0	\$2,450		\$3,057	\$3,821
1,572	Valves, Piping, Feed Reg, Controls	1	LS	\$400.00	\$400	4.000	4.0	\$204		\$604	\$755
1,573	23/10/0										
1,573											
1,574											

Line				Material C	osts	Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,575											
1,576	15540 HVAC Pumps										
1,577	Main Heating Circ Pump, 150	2	EA	\$2,800.00	\$5,600	8.000	16.0	\$817		\$6,417	\$8,021
.,	GPM, 1.5 HP			~ _,~~~	4 0,000			***		+ -,	4 -,
1,578	AHU Circ Pump, 100 GPM, 1.5 HP	2	EA	\$1,200.00	\$2,400	6.000	12.0	\$613		\$3,013	\$3,766
1,579											
1,580	Cast Iron Boilers										
1,581	Boilers - Cast Iron Oil Fired, 1,275 MBH	2	EA	\$12,300.00	\$24,600	57.143	114.3	\$5,835		\$30,435	\$38,044
1,582	Boiler Trim, Foundation, Specialties	1	LS	\$18,460.00	\$18,460	85.714	85.7	\$4,375		\$22,835	\$28,544
1,583											
1,584	Stack and Flue Vents										
1,585	Pressure Stack, 18"	24		\$72.50	\$1,740	0.421	10.1	\$516		\$2,256	\$2,820
1,586	Fittings, 18"	4	EA	\$400.00	\$1,600	0.842	3.4	\$174		\$1,774	\$2,218
1,587	Roof Support Assy, Penetration, Curb	1	EA	\$480.00	\$480	1.053	1.1	\$56		\$536	\$670
1,588 1,589	Stack Cap, Supports	1	EA	\$320.00	\$320	0.562	0.6	\$31		\$351	\$439
1,590	Terminal Heat Transfer Units										
1,591	(Typ Assy Includes Fittings, AAV, Ctrl Valve,										
1,592	Isolation Valves, Bal Valve)										
1,593	Unit Heaters, Util & Fish Rearing Areas	6	EA	\$700.00	\$4,200	4.000	24.0	\$1,225		\$5,425	\$6,781
1,594	Cabinet Unit Heaters (Entrances)	2	EA	\$893.00	\$1,786	4.000	8.0	\$408		\$2,194	\$2,743
1,595											
1,596	15800 Air Distribution										
1,597	Component Air Handlers, Incl Mix Box, Coils,										
1,598	Filter Section, Int. Isolation										
1,599	AHU-1: 10,900 CFM	1	EA	\$21,809.00	\$21,809	40.000	40.0	\$2,114		\$23,923	\$29,904
1,600											
1,601	Vent Fans, Utility Sets	-		A. - -	04.555	0.000		**		.	0
1,602	Mech Room Ventilation, Plenum, Dampers	1	LS	\$1,200.00	\$1,200	6.000	6.0	\$317		\$1,517	\$1,896

Line				Material C	Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,603											
1,604	Ductwork										
1,605	Low Velocity Duct, Incl Allowance										
1,606	For Waste, Supports and Joints										
1,607	Round Spiral, Galvanized	11,800	LBS	\$1.60	\$18,880	0.075	885.0	\$46,769		\$65,649	\$82,061
1,608	Rectangular, Galvanized	7,100	LBS	\$1.90	\$13,490	0.084	596.4	\$31,517		\$45,007	\$56,259
1,609	3 ,	,		•	. ,			. ,		. ,	. ,
1,610	Ductwork Accessories										
1,611	Fire/Smoke Dampers	2	EA	\$350.00	\$700	2.000	4.0	\$211		\$911	\$1,139
1,612	Duct Access Doors	2	EA	\$28.00	\$56	0.750	1.5	\$79		\$135	\$169
1,613	Volume Dampers	50	EA	\$18.00	\$900	0.500	25.0	\$1,321		\$2,221	\$2,776
1,614	The second secon			•	,			* /-		* /	¥ , -
1,615	Air Outlets and Inlets: Diffusers,										
,	Grilles Incl Boots,										
1,616	Mtg Hdwre, Frames, Accessories										
1,617	S/A Diffusers	90	EA	\$45.00	\$4,050	1.000	90.0	\$4,756		\$8,806	\$11,008
1,618	R/A, E/A, Transfer Grilles	7	EA	\$28.00	\$196	0.660	4.6	\$243		\$439	\$549
1,619	Louvers, Fixed Alum Incl.	160	SF	\$40.00	\$6,400	0.050	8.0	\$423		\$6,823	\$8,529
.,0.0	Birdscreen		C .	Ψ.σ.σσ	ψο, .σσ	0.000	0.0	Ųs		Ψ0,020	Ψ0,020
1,620											
1,621	15970 Control Systems										
1,622	Control Points	36	PTS	\$700.00	\$24,920					\$24,920	\$34,888
1,623				*********	-					V = 1,0=0	4 0 1,000
1,624	15990 Balancing & Testing										
1,625	Balance Hydronic System	1	LS	\$200.00	\$200	4.700	4.7	\$253		\$453	\$634
1,626	Balance Air Systems	1	LS	\$200.00	\$200	54.500	54.5	\$2,931		\$3,131	\$4,383
1,627	Commissioning, Startup	1	LS	\$200.00	\$200	120.000	120.0	\$6,453		\$6,653	\$9,314
1,628	g, cp			¥=00000	4			40,100		¥ 2,222	4 -,
1,629											
1,630											
1,631											
1,632											
1,633											
1,634	Subtotal: MECHANICAL: Cost based	on 47.359	9 SF		\$232,663		6,305.7	\$309,813	\$6,113	\$548,589	\$678,915
1,635	Average Unit Price for this division is:				Ψ <u></u> ,000		0,000.1	ψουσ,σ10	ψο, ι ι ο	ψο .ο,οοο	ψο. ο,ο ιο
1,636	Average Labor Rate for this division:	•									
.,000	Attorage East Mate for this division.	# 10.10 per									

Line				Material C	osts	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,637											
1,638	ELECTRICAL										
1,639	16010 Basic Electrical Requirements										
1,640	Field Engineering: Submittals, Shop & Record										
1,641	Dwgs, Operating Instructions, O&M Manuals	100	HRS	\$5.00	\$500	1.000	100.0	\$3,675		\$4,175	\$4,175
1,642	Supervision	5	WEEKS			50.000	250.0	\$12,500	\$313	\$12,813	\$12,813
1,643	Materials Control	5	WEEKS			30.000	150.0	\$3,150	\$344	\$3,494	\$3,494
1,644	Bond and Insurance	1	LS	\$1,900.00	\$1,900					\$1,900	\$1,900
1,645	Tools and Equipment	1	LS						\$800	\$800	\$800
1,646											
1,647	Service & Distribution Systems										
1,648	Service Equipment										
1,649	Transformer	100	KVA	\$27.00	\$2,700	0.120	12.0	\$652		\$3,352	\$4,190
1,650											
1,651	Panelboards										
1,652	Panelboards, 120/208V, 3 Phase, 4 Wire, 225A, MLO, 42 Circuit, W/Breakers	1	EA	\$1,155.00	\$1,155	10.000	10.0	\$543		\$1,698	\$2,123
1,653											
1,654	Feeders & Subfeeds										
1,655	225 Amp: 2-1/2" RGS, 4#250 KCMIL, 1#4	125	LF	\$16.65	\$2,081	0.404	50.5	\$2,742		\$4,823	\$6,029
1,656											
1,657	Grounding	1	LS	\$500.00	\$500					\$500	\$625
1,658											
1,659											
1,660											
1,661											
1,662											
1,663											
1,664											
1,665											
1,666											
1,667											

Line				Material C	Costs	Labor I	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,668											
1,669	Power Distribution										
1,670	Receptacles	21	EA	•							
1,671	WP GFCI Receptacles	21	EA	\$23.45	\$492	0.250	5.3	\$288		\$780	\$975
1,672	Add For:										
1,673	3/4in. GRS	420	LF	\$0.70	\$294	0.040	16.8	\$912		\$1,206	\$1,508
1,674	Add For RGC In Wet Areas	126	LF	\$0.50	\$63	0.029	3.7	\$201		\$264	\$330
1,675	3/4in. GRS CONN	42	EA	\$0.50	\$21	0.086	3.6	\$195		\$216	\$270
1,676	3/4in. GRS CPLG	42	EA	\$1.39	\$58					\$58	\$73
1,677	3/4in. GRS STRAP 1-H	63	EA	\$0.15	\$9	0.030	1.9	\$103		\$112	\$140
1,678	#12 THHN	1,386	LF	\$0.09	\$125	0.005	6.9	\$375		\$500	\$625
1,679	Utility Box 2-1/2 D 1/2 Ko	21	EA	\$1.33	\$28	0.220	4.6	\$250		\$278	\$348
1,680	1G Ss Receptacle Plate	21	EA	\$2.50	\$53	0.030	0.6	\$33		\$86	\$108
1,681	1In. X10 S-Tap Screw	105	EA	\$0.02	\$2	0.025	2.6	\$141		\$143	\$179
1,682											
1,683	16420 Enclosed Controllers										
1,684	Fractional To 1/4 HP	8	EA	\$65.00	\$520	1.000	8.0	\$434		\$954	\$1,193
1,685	Wiring: Nom. 3/4" EMT 3#10, 1N	240	LF	\$1.17	\$281	0.094	22.6	\$1,227		\$1,508	\$1,885
1,686	Starter/Disconnect, AHU 25 HP	1	EA	\$850.00	\$850	8.000	8.0	\$434		\$1,284	\$1,605
1,687	1-1/4" RGS, 4#4, 1#8	80	LF	\$4.75	\$380	0.203	16.2	\$880		\$1,260	\$1,575
1,688	Starter/Disconnect, Fans15 HP	1	EA	\$600.00	\$600	6.000	6.0	\$326		\$926	\$1,158
1,689	Wiring: 1" RGS, 3#4, 1#8	80	LF	\$1.17	\$94	0.094	7.5	\$407		\$501	\$626
1,690	MCC Structures	1	EA	\$3,500.00	\$3,500	40.000	40.0	\$2,172		\$5,672	\$7,090
1,691											
1,692	Interior Lighting										
1,693	400W Metal Halide	48	EA	\$700.00	\$33,600	3.000	144.0	\$7,819		\$41,419	\$51,774
1,694	Exit Sign, LED	11	EA	\$56.00	\$638	2.000	22.8	\$1,238		\$1,876	\$2,345
1,695	Emerg. Batt Wall Pack	20	EA	\$175.00	\$3,500	3.000	60.0	\$3,258		\$6,758	\$8,448
1,696	Switches	8	EA	\$17.81	\$142	0.529	4.2	\$228		\$370	\$463
1,697	Wiring: 3/4" Cond, 3-#12, Gnd	1,400	LF	\$0.96	\$1,344	0.080	112.0	\$6,081		\$7,425	\$9,281
1,698	Lighting Controls	1	LS	\$5,000.00	\$5,000	18.571	18.6	\$1,010		\$6,010	\$7,513
1,699	g g 	•	_•	ψο,οοο.σο	ψο,σοσ			ψ.,σ.		40,010	ψ.,σ.ο
1,700											
1,701											
1,702											
1,702											
1,700											

Line				Material C		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,704											
1,704	Exterior Lighting										
1,706	Wall Mtd 70 W HPS	8	EA	\$180.00	\$1,440	2.000	16.0	\$869		\$2,309	\$2,886
1,707	Wall Mtd 150 W HPS	8	EA	\$385.00	\$3,080	2.500	20.0	\$1,086		\$4,166	\$5,208
1,708	Wiring: 3/4" Cond, 3-#12, Gnd	560	LF	\$0.96	\$538	0.080	44.8	\$2,433		\$2,971	\$3,714
1,709				*****	****			4 =, 100		+ -,	+- ,
1,710	Fire Alarm & Detection	10,905	SF	\$2.00	\$21,809					\$21,809	\$27,261
1,711		.,		,	, , , , , , , , ,					* /	* , -
1,712	Misc Special Systems	10,905	SF	\$1.00	\$10,905					\$10,905	\$13,631
1,713											
1,714											
1,715											
1,716											
1,717											
1,718											
1,719											
1,720											
1,721											
1,722											
1,723											
1,724											
1,725											
1,726											
1,727											
1,728											
1,729											
1,730											
1,731											
1,732											
1,733											
1,734											
1,735 1,736											
1,736	Subtotal ELECTRICAL Cost has	d on 47 050	CE.		\$00 000		1,169.2	QEE 660	\$1,456	\$155 220	¢400.004
1,737	Subtotal: ELECTRICAL: Cost base Average Unit Price for this division i				\$98,202		1,109.2	\$55,662	Ф1,400	\$155,320	\$188,361
1,738 1,739	Average Unit Price for this division in Average Labor Rate for this division										
1,739	Average Labor Rate for this division	i. φ47.61 per	noui								

Line				Material C		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,740											
	EXISTING FACILITY RENOVATION & U	1	LS								
,, 1,742	Water Aeration Building	•									
,743	New Doors and Hardware, Suitable	4	EA	\$1,500.00	\$6,000	10.000	40.0	\$2,016		\$8,016	\$8,016
	For Wet Environments										
1,744	Repair/Replace Existing Steel Walkways	1	LS	\$5,000.00	\$5,000					\$5,000	\$5,000
1,745											
1,746	New Metal Roof On Aeration Tower	784	SF								
1,747	Demolition	784	SF	\$0.10	\$78	0.030	23.5	\$1,184		\$1,262	\$1,262
1,748	Metal Roofing, Insulated	784	SF	\$7.50	\$5,880	0.160	125.4	\$6,320		\$12,200	\$12,200
1,749											
1,750	Modify Chain Link Fence Surrounding The Towers	960	SF	\$1.00	\$960	0.057	54.7	\$2,757		\$3,717	\$3,717
1,751											
1,752	Additional Heat and Lighting In The Pump Room Below The Aeration Towers	1	LS	\$10,000.00	\$10,000					\$10,000	\$10,000
1,753	New Pumping System To Pressurize The Warm and Cold Water Supply Lines To The Site. Integrate With Existing Systems.	1	LS	\$50,000.00	\$50,000					\$50,000	\$50,000
1,754	3 2,500										
1,755											
1,756											
1,757											
1,758											
1,759											
760,1											
,761											
,762											
,763											
,764 ,765 ,766	Subtotal: Water Aeration Building: Co Average Unit Price for this division is: \$ Average Labor Rate for this division: \$4	3132.24	per		\$885,166		17,848.4	\$879,535	\$19,137	\$1,783,838	\$2,117,391

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
4 707											
1,767	Mall Field And Water Biotolikestics Cont										
1,768 1,769	Well Field And Water Distribution Syst	em 1	LS	\$50,000.00	¢ E0 000					\$ E0.000	¢ E0 000
1,769	Upgrade Well Pump Control System. Add VFD Controls, Sump	ı	LS	\$50,000.00	\$50,000					\$50,000	\$50,000
	Level Sensor.										
1,770	Level Selisol.										
1,771	Replace and Extend Cold and	23,200	LF								
.,	Warm Water Feeds From	20,200									
	Aeration Building To Hatchery										
	Facilities. Priced Below:										
1,772	Water Main - Warm	11,600	LF								
1,773	Trench Excavation W/Hyd. Exc.	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
1,774	Backfill In Trenches, W/Excavated	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
	Matl										
1,775	Pipe Bedding	2,320	CY	\$19.80	\$45,936	0.050	116.0	\$6,021	\$7,540	\$59,497	\$68,422
1,776	8" DIP	11,600	LF	\$13.00	\$150,800	0.257	2,981.2	\$154,736		\$305,536	\$351,366
1,777	Insulation	11,600	LF	\$4.21	\$48,836	0.086	997.6	\$51,779		\$100,615	\$115,707
1,778	Connect To Existing	1	EA	\$500.00	\$500					\$500	\$575
1,779	8" Gate Valve W/Valve Box	8	EA	\$750.00	\$6,000	4.000	32.0	\$1,661	\$520	\$8,181	\$9,408
1,780	Hydrostatic Testing	11,600	LF			0.020	232.0	\$12,042		\$12,042	\$13,848
1,781											
1,782	Water Main - Cold	11,600	LF			0.050	4 507 0	A 70 770	# 00.400	0.4.00.000	0.407.040
1,783	Trench Excavation W/Hyd. Exc.	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
1,784	Backfill In Trenches, W/Excavated	29,000	CY			0.053	1,537.0	\$79,776	\$83,133	\$162,909	\$187,346
1,785	Matl Pipe Bedding	2,320	CY	\$19.80	\$45,936	0.050	116.0	\$6,021	\$7,540	\$59,497	\$68,422
1,786	8" DIP	11,600	LF	\$13.00	\$150,800	0.050	2,981.2	\$154,736	φ1,5 4 0	\$305,536	\$351,366
1,787	Connect To Existing	11,000	EA	\$500.00	\$500	0.231	2,901.2	ψ13 4 ,730		\$500,530	\$575
1,788	8" Gate Valve W/Valve Box	8	EA	\$750.00	\$6,000	4.000	32.0	\$1,661	\$520	\$8,181	\$9,408
1,789	Hydrostatic Testing	11,600	LF	ψ/ 50.00	ψ0,000	0.020	232.0	\$12,042	ΨΟΖΟ	\$12,042	\$13,848
1,790	Try drootatio Tooling	, 000				0.020	202.0	Ψ.2,σ.2		Ψ12,012	ψ.ο,ο.ο
1,791											
1,792											
1,793	Subtotal: Well Field And Water Distri	bution Sys	stem: Cost	based on 47,35	\$505,308		13,868.0	\$719,803	\$348,653	\$1,573,764	\$1,802,329
1,794	Average Unit Price for this division is:			,	•		•		•		. , , .
1,795	Average Labor Rate for this division:	•									

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,796											
1,797	Shop Complex										
1,798	New Concrete Slab Floor In Cold	1,200	SF								
.,	Storage Bay	.,	0.								
1,799	Demolition Slab	1,200	SF			0.020	24.0	\$1,234	\$420	\$1,654	\$1,654
1,800	New 6" Slab on Grade	1,200	SF	\$2.60	\$3,120	0.066	79.2	\$4,071	\$333	\$7,524	\$7,524
1,801											
1,802	New Galvanized Finished Metal	3,840	SF								
	Siding										
1,803	Demolition Siding	3,840	SF			0.030	115.2	\$5,921		\$5,921	\$5,921
1,804	Metal Siding	3,840	SF	\$8.00	\$30,720	0.057	218.9	\$11,252	\$960	\$42,932	\$42,932
1,805										A	
1,806	Welding Exhaust and Makeup Air	1	LS	\$3,500.00	\$3,500	80.000	80.0	\$4,228		\$7,728	\$9,660
4 007	System										
1,807											
1,808											
1,809 1,810											
1,811											
1,812	Subtotal: Shop Complex: Cost based	l on 4 800	SF		\$37,340		517.3	\$26,706	\$1,713	\$65,759	\$67,691
1,813	Average Unit Price for this division is:				φον,στο		017.0	Ψ20,700	Ψ1,710	φοσ,7 σσ	ψ01,031
1,814	Average Labor Rate for this division:										
1,815	The lage Laber Hate ion time arries.	7000 ро.									
1,816	Water Filtration Building	1,595	SF								
1,817	Remove Equipment	1	LS	\$100.00	\$100	100.000	100.0	\$5,105	\$500	\$5,705	\$7,131
1,818	Refinish, Use For Storage	1,595	SF	\$2.00	\$3,190	0.143	228.1	\$11,724		\$14,914	\$14,914
1,819	Cover Drum Filter Pit With Steel	240	SF	\$12.00	\$2,880	0.100	24.0	\$1,300		\$4,180	\$4,598
	Grate Floor										
1,820	Add OH Door	1	EA	\$4,500.00	\$4,500	40.000	40.0	\$1,908		\$6,408	\$7,369
1,821											
1,822											
1,823											
1,824											
1,825	Subtotal: Water Filtration Building: C				\$10,670		392.1	\$20,037	\$500	\$31,207	\$34,012
1,826	Average Unit Price for this division is:										
1,827	Average Labor Rate for this division: \$	51.10 per	hour								

Line				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,828											
1,829	Visitor Center	2,311	SF	\$40.00	\$92,440	1.286	2,971.9	\$141,739		\$234,179	\$269,306
1,830	Frame Building On Slab, S.M	2,011	O.	Ψ10.00	ψ02,110	1.200	2,071.0	Ψ111,700		Ψ201,170	Ψ200,000
,,,,,,,	Siding, 62'L x 41'W										
1,831	Convert To Offices. Gut Back To										
	Walls, Install New										
1,832	Partitions, Finishes.										
1,833											
1,834											
1,835											
1,836											
1,837											
1,838											
1,839											
1,840 1,841											
1,842											
1,843											
1,844											
1,845	Subtotal: Visitor Center: Cost based	on 47,359) SF		\$92,440		2,971.9	\$141,739		\$234,179	\$269,306
1,846	Average Unit Price for this division is:				. ,		,	. ,		. ,	,,
1,847	Average Labor Rate for this division:	\$47.69 per	hour								
1,848											
1,849	Incubator Building, Misc Repairs	1	LS	\$10,000.00	\$10,000					\$10,000	\$10,000
1,850											
1,851											
1,852											
1,853											
1,854											
1,855											
1,856 1,857											
1,858											
1,859	Subtotal: Incubator Building, Misc R	opoiro: Ca	act based on	47 250 SE	\$10,000					\$10,000	\$10,000
1,860	Average Unit Price for this division is:			1 41,339 SF	φ10,000					φ10,000	φ10,000
1,861	Average Labor Rate for this division:										
1,001	Average Labor Mate for this division.	φυ.υυ per i	ioui								

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,862											
	EQUIPMENT	1	LS								
1,864	Hatchery Equipment										
1,865											
1,866	Culture Tankage										
1,867	40m3 Culture Tank	41	EA	\$6,249.23	\$256,218	169.231	6,938.5	\$242,848		\$499,066	\$499,066
1,868	Drain Sump and Screen	41	EA	\$313.46	\$12,852					\$12,852	\$12,852
1,869	Side Box Drain and Screen	41	EA	\$846.15	\$34,692					\$34,692	\$34,692
1,870	Bottom Drain Standpipe	41	EA	\$384.62	\$15,769					\$15,769	\$15,769
1,871											
1,872	King Salmon Advanced Filtration										
1,873	Drum Filter	1	EA	\$19,892.11	\$19,892	2,417.582	2,417.6	\$84,616		\$104,508	\$104,508
1,874	Backwash, Level Control, 3 Phase	1	EA	\$2,542.31	\$2,542					\$2,542	\$2,542
1,875	Biofilter	1	EA	\$28,975.00	\$28,975					\$28,975	\$28,975
1,876	Gas Transfer Systems	1	EA	\$43,269.23	\$43,269					\$43,269	\$43,269
1,877	Pump Sump	1	EA	\$15,384.62	\$15,385					\$15,385	\$15,385
1,878	Pumps	2	EA	\$3,365.38	\$6,731					\$6,731	\$6,731
1,879	Controls	1	EA	\$3,365.38	\$3,365					\$3,365	\$3,365
1,880	UV	1	EA	\$96,153.85	\$96,154					\$96,154	\$96,154
1,881	Related Plumbing	1	EA	\$75,000.00	\$75,000					\$75,000	\$75,000
1,882	Ç										
1,883	Arctic Char Advanced Filtration										
1,884	Drum Filter	1	EA	\$7,724.74	\$7,725	967.033	967.0	\$33,845		\$41,570	\$41,570
1,885	Backwash, Level Control, 1 Phase	1	EA	\$2,473.85	\$2,474			*,-		\$2,474	\$2,474
1,886	Biofilter	1	EA	\$7,775.00	\$7,775					\$7,775	\$7,775
1,887	Gas Transfer Systems	3	EA	\$15,775.00	\$47,325					\$47,325	\$47,325
1,888	Pump Sump	1	EA	\$4,500.00	\$4,500					\$4,500	\$4,500
1,889	Pumps	2	EA	\$1,442.31	\$2,885					\$2,885	\$2,885
1,890	Controls	1	EA	\$5,769.23	\$5,769					\$5,769	\$5,769
1,891	UV	1	EA	\$8,653.85	\$8,654					\$8,654	\$8,654
1,892	Related Plumbing	1	EA	\$38,461.54	\$38,462					\$38,462	\$38,462
1,893	. Colocton Figure 1	'	_/ \	φου, πο π.υ-τ	ψου, ιοΣ					ψου, τοΣ	ψου, ισε
1,894											
1,895											
1,896											
1,897											
1,097											

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,898											
1,899	Arctic Grayling Advanced Filtration										
1,900	Drum Filter	1	EA	\$10,016.27		1,087.912	1,087.9	\$38,077		\$48,093	\$48,093
1,901	Backwash, Level Control, 1 Phase	1	EA	\$2,542.31	\$2,542					\$2,542	\$2,542
1,902	Biofilter	1	EA	\$7,775.00	\$7,775					\$7,775	\$7,775
1,903	Gas Transfer Systems	1	EA	\$15,775.00	\$15,775					\$15,775	\$15,775
1,904	Pump Sump	1	EA	\$4,500.00	\$4,500					\$4,500	\$4,500
1,905	Pumps	2	EA	\$1,682.69	\$3,365					\$3,365	\$3,365
1,906	Controls	1	EA	\$5,769.23	\$5,769					\$5,769	\$5,769
1,907	UV	1	EA	\$10,576.92	\$10,577					\$10,577	\$10,577
1,908	Related Plumbing	1	EA	\$38,461.54	\$38,462					\$38,462	\$38,462
1,909											
1,910	Rainbow Trout Advanced Filtration										
1,911	Drum Filter	3	EA	\$19,892.11	\$59,676	1,648.352	4,945.1	\$173,079		\$232,755	\$232,755
1,912	Backwash, Level Control, 3 Phase	3	EA	\$2,542.31	\$7,627					\$7,627	\$7,627
1,913	Biofilter	3	EA	\$15,775.00	\$47,325					\$47,325	\$47,325
1,914	Gas Transfer Systems	3	EA	\$33,653.85	\$100,962					\$100,962	\$100,962
1,915	Pump Sump	3	EA	\$10,000.00	\$30,000					\$30,000	\$30,000
1,916	Pumps	6	EA	\$2,884.62	\$17,308					\$17,308	\$17,308
1,917	Controls	3	EA	\$9,615.38	\$28,846					\$28,846	\$28,846
1,918	UV	3	EA	\$48,076.92	\$144,231					\$144,231	\$144,231
1,919	Related Plumbing	3	EA	\$62,500.00	\$187,500					\$187,500	\$187,500
1,920	3			, , , , , , , , , , , , , , , , , , , ,	, ,,,,,,,					· - ,	* - ,
1,921	Monitoring and Alarm Systems										
1,922	Water Quality Monitoring Systems	6	EA	\$7,500.00	\$45,000	146.520	879.1	\$30,769		\$75,769	\$75,769
1,923	Wire and Conduit	1	EA	\$25,000.00	\$25,000			4 00,100		\$25,000	\$25,000
1,924	Water Quality Monitoring PC	1	EA	\$1,269.23	\$1,269					\$1,269	\$1,269
1,925	Software	2	EA	\$1,100.00	\$2,200					\$2,200	\$2,200
1,926	Central Alarm System	1	EA	\$76,923.08	\$76,923	1,098.901	1,098.9	\$38,462		\$115,385	\$115,385
1,927	Water Flow Meters	41	EA	\$323.08	\$13,246	1,000.001	1,000.0	φοσ, .σ_		\$13,246	\$13,246
1,928	Water Test Kit	2	EA	\$369.23	\$738					\$738	\$738
1,929	Water Foot Nit	_	L /\	φοσο.2σ	φίσο					Ψίου	ψ100
1,930											
1,930											
1,931											
1,932											
1,933											

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,934											
1,935	Fish Handling, Feeding, and Husband	ry Equipı									_
1,936	Cart Mounted Fish Pump	1	EA	\$16,923.08	\$16,923					\$16,923	\$16,923
1,937	Fish Handling Troughs and Related Plumbing	1	EA	\$19,230.77	\$19,231	439.560	439.6	\$15,386		\$34,617	\$34,617
1,938	Crowding Devices	2	EA	\$7,692.31	\$15,385					\$15,385	\$15,385
1,939	Automated Feeding System	1	EA	\$134,615.38	\$134,615	989.011	989.0	\$34,615		\$169,230	\$169,230
1,940	Miscellaneous Culture Equipment	1	EA	\$23,076.92	\$23,077					\$23,077	\$23,077
1,941											
1,942	Plumbing										
1,943	Influent Distribution Piping To Tanks	1	EA	\$135,384.62	\$135,385	2,417.582	2,417.6	\$84,616		\$220,001	\$220,001
1,944	Waste Collection Plumbing	1	EA	\$101,538.46	\$101,538	989.011	989.0	\$34,615		\$136,153	\$136,153
1,945	Miscellaneous Culture System	1	EA	\$23,076.92	\$23,077					\$23,077	\$23,077
	Piping										
1,946	. 0										
1,947	Oxygenation										
1,948	Oxygen Generator	2	EA	\$12,692.31	\$25,385	43.956	87.9	\$3,077		\$28,462	\$28,462
1,949	Concrete Pad For Bulk Oxygen	1	EA	\$11,538.46	\$11,538	219.780	219.8	\$7,693		\$19,231	\$19,231
	Backup										
1,950	Backup Oxygen System and	1	EA	\$26,923.08	\$26,923	219.780	219.8	\$7,693		\$34,616	\$34,616
	Diffusers										
1,951	Oxygen Distribution Piping and	1	EA	\$30,769.23	\$30,769	439.560	439.6	\$15,386		\$46,155	\$46,155
	Flow Meters										
1,952											
1,953	Heating Systems										
1,954	Boiler / Heat Exchanger Systems	1	EA	\$173,076.92	\$173,077	879.121	879.1	\$30,769		\$203,846	\$203,846
1,955	Miscellaneous Pumps, Controls,	1	EA	\$15,384.62	\$15,385					\$15,385	\$15,385
	Etc										
1,956											
1,957											
1,958											
1,959											
1,960											
1,961											
1,962											
•											

Line				Material		Labor		Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
1,963											
1,964	Miscellaneous Installation										
1,965	Miscellaneous Installation Labor	1	EA			1,098.901	1,098.9	\$38,462		\$38,462	\$38,462
1,966	System Electrical Wiring Estimate	1	EA	\$115,384.62	\$115.385	2,637.363	2,637.4	\$92,309		\$207,694	\$207,694
1,967	Tank and Filtration Access Ladders and Walkways	1	EA	\$76,923.08		1,318.681	1,318.7	\$46,155		\$123,078	\$123,078
1,968	Machine Time For Pipe and Equipment Placement	1	EA			879.121	879.1	\$30,769		\$30,769	\$30,769
1,969 1,970	Pipe Supports and Hangers	1	EA	\$19,230.77	\$19,231	549.451	549.5	\$19,233		\$38,464	\$38,464
1,970 1,971	Contingency (15%)	1	LS	\$553,403.05	\$553,403					\$553,403	\$553,403
1,972											
1,973	Allowance For Shipping	1	LS	\$51,737.84	\$51,738					\$51,738	\$51,738
1,974											
1,975											
1,976											
1,977											
1,978											
1,979											
1,980											
1,981											
1,982											
1,983											
1,984											
1,985											
1,986											
1,987											
1,988											
1,989											
1,990											
1,991											
1,992			45.050.05		CO 400 000		04 400 4	₾4 400 4 7 4		#4.004.507	A 4 CO 4 CO T
1,993 1,994	Subtotal: Hatchery Equipment: Cost Average Unit Price for this division is:	\$90.68 pe	r SF		\$3,192,033		31,499.1	\$1,102,474		\$4,294,507	\$4,294,507
1,995	Average Labor Rate for this division: \$	35.00 per	hour								
1,996											

Appendix D Elmendorf State Hatchery Kiosk Construction Cost Estimate

Elmendorf State Hatchery Kiosk Sportfish Division, ADF&G Anchorage, Alaska

Construction Cost Estimate Conceptual Level September 29, 2004

ESTIMATIONS

1225 E. International Airport Road, Suite 205 Anchorage, Alaska 99518 907.561.0790

Prepared for:

CH2M Hill

301 West Northern Lights Blvd, Suite 601 Anchorage, Alaska 99503-2691 907.646.0343

Construction Cost Estimate Conceptual Level September 29, 2004

General Information

Based on 2006 procurement/2006 construction.

Documents

Concept Design

Notes and Assumptions

- 1 Labor rates based on Davis Bacon, 40 hours/week
- Weather, logistics and construction time window has been considered, assuming a spring start of construction.
- 3 Local contractor with limited room and board.
- This estimate is for construction cost only. No Design, Engineering, Construction Administration or other Owner costs included in this estimate.

Description	Qty	Unit		Est	imated Cost	Totals	Estimated Cost with Genl Requirements Distributed	Estimated Cost Plus Contingencies
GENERAL REQUIREMENTS GENERAL REQUIREMENTS	2	MONT	ГНЅ		\$71,857	\$71,857		
SITE DEVELOPMENT SITE DEVELOPMENT SITE IMPROVEMENTS SITE UTILITIES SITE SECURITY VISITOR KIOSK		ACRE			\$90,635 \$185,730 \$46,597 \$22,934 \$50,419	\$396,315	\$468,172	\$576,650
Subtotal: Estimating Contingency: Escalation For Inflation: Assumes a midpoint of 06/2006	21 Mths	@	4.0%	15.0% 7.1%		\$468,172 \$70,226 \$38,251	\$468,172	\$576,650
Total Estimated Construction Cost:						\$576,650		

ne				Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
о.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
	ENERAL REQUIREMENTS	2	MONTHS								
2											
3	Project Management										
4	Project Manager - 8 Hrs/Week	11	WEEKS			8.000	88.0	\$6,160		\$6,160	\$6,160
5	Supervisor - 20 Hrs/Week	9	WEEKS			10.000	90.0	\$4,500		\$4,500	\$4,500
6 7	Quality Control - 20 Hrs/Week	9	WEEKS			10.000	90.0	\$3,308		\$3,308	\$3,308
8 9	Small Tools & Consumables	1	LS	\$1,870.00	\$1,870					\$1,870	\$1,870
10	Equipment										
11	Pickup	9	WEEKS						\$2,100	\$2,100	\$2,100
12	Forklift	4							\$2,667	\$2,667	\$2,667
13		·							Ψ2,00.	4 2,00.	4 2,00.
14	Other Requirements	1	LS	\$6,000.00	\$6,000					\$6,000	\$6,000
15		·		40,000.00	40,000					40,000	40,000
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
20 29											
29 30	Compared Compared to Compared to Durafit	00/									# 00.00
	General Contractor Overhead & Profit	8%									\$33,834
31 32	General Contractor Bond & Insurance	2.5%									\$11,419
33	Subtotal: GENERAL REQUIREMENTS: C	ost based	on 400 SF		\$7,870		268.0	\$13,968	\$4,767	\$26,605	\$71,857
34	Average Unit Price for this division is: \$179	9.87 per S	F						•		, ,
35	Average Labor Rate for this division: \$52.	•									

Line	•			Material C	osts	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
36											
	SITE DEVELOPMENT	1	LS								
38											
39	SITE PREPARATION										
40	Clearing & Grubbing										
41	Clear & Grub, Light	1.0	ACRE	\$3,500.00	\$3,538					\$3,538	\$4,069
42	Demo Bollards	2.0	EA			1.000	2.0	\$101	\$66	\$167	\$167
43											
44	Earthwork, Grading and Drainage										
45	General Earthwork										
46	Site Compaction	44,033				0.009	396.3	\$20,570	\$22,016	\$42,586	\$48,974
47	Rough Grading	44,033	SF			0.003	132.1	\$6,857	\$2,642	\$9,499	\$10,924
48											
49	Building Earthwork		0) (***
50	Excavation For Bldg (20% Allowed For Swell)	36	CY			0.020	0.7	\$36	\$85	\$121	\$139
51	Foundation Excavation	57	CY			0.025	1.4	\$73	\$171	\$244	\$281
52	Haul Exc To Waste	93	CY			0.014	1.3	\$67	\$159	\$226	\$259
53	NFS Fill For Bldg (15% Allowed For Comp.)	36	CY	\$5.00	\$178	0.091	3.2	\$166	\$135	\$479	\$551
54	Backfill Foundations	57	CY	\$5.00	\$285	0.091	5.2	\$270	\$217	\$772	\$887
55											
56	Site Earthwork										
57	NFS Fill - Parking, Roads & Walks	1,568	CY	\$5.00	\$7,839	0.091	142.7	\$7,407	\$5,958	\$21,204	\$24,384
58											
59											
60											
61											
62											
63											
64											
65					A						
66	Subtotal: SITE DEVELOPMENT: Cost ba				\$11,840		684.9	\$35,547	\$31,448	\$78,835	\$90,635
67	Average Unit Price for this division is: \$22 Average Labor Rate for this division: \$51.										

Line				Material (Costs	Labor	Hours	Labor	Equip	Total	Total Cost
No.	Description	Qty	UNITS	Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
69 70	SITE IMPROVEMENTS										
71	SITE IMPROVEMENTS										
72	Paving and Surfacing										
73	Roadway Asphalt 2" W/4" Base	3,919	SY	\$14.00	\$54,872					\$54,872	\$63,103
74	Paint 4" Lines On Pavement	1,600	LF	\$0.45	\$720					\$720	\$828
75	HCP Parking Markings	4	EA	\$15.00	\$60	1.000	4.0	\$208		\$268	\$308
76	Ramps, 4" PCC	258	SF	\$2.00	\$516	0.054	13.9	\$721		\$1,237	\$1,423
77	Stairs	60	SF	\$4.00	\$240	0.080	4.8	\$249	\$12	\$501	\$576
78	Asphalt Walk	600	SF	\$2.50	\$1,500	0.000		Ψ2.0	Ψ.2	\$1,500	\$1,725
79	Railings & Bollards	320	LF	\$40.00	\$12,800	0.700	224.0	\$11,627		\$24,427	\$28,091
80	ramigo a Donardo	020		Ψ.0.00	4 12,000	000		Ψ,σΞ.		Ψ= 1, 1=1	Ψ20,00
81	Site Improvements										
82	New Signage	10	EA	\$175.00	\$1,750	1.500	15.0	\$779		\$2,529	\$2,908
83	Elevated Walk at Broodstock Race	500	SF	\$73.00	\$36,500	0.943	471.5	\$24,473		\$60,973	\$70,119
84			-	4,0,00	400,000	0.0.0		Ψ= 1, 1.7 σ		ψου,υ. σ	Ψ, σ, ι ι σ
85	Landscaping										
86	Topsoil & Seeding	833	SY	\$2.20	\$1,833	0.040	33.3	\$1,728	\$417	\$3,978	\$4,574
87	Allow For Plantings	1	LS	\$2,000.00	\$2,000			4 . 1 . – 2	• • • • •	\$2,000	\$2,300
88	Ç			, ,	·					+ -,	+ -,
89	Fencing										
90	Security Fence 8' W/Conc Bases	340	LF	\$25.00	\$8,500					\$8,500	\$9,775
91	•				, -,					70,000	40,
92											
93											
94											
95											
96											
97											
98											
99											
100											
101	Subtotal: SITE IMPROVEMENTS: Cost	based on 4	00 SF	*****	\$121,291		766.5	\$39,785	\$429	\$161,505	\$185,730
102	Average Unit Price for this division is: \$4				•				,	, ,	, ,
103	Average Labor Rate for this division: \$5										

Line No.	Description	Qty	UNITS	Material Costs		Labor Hours		Labor	Equip	Total	Total Cost
				Unit	Total	Units	Totals	Cost	Cost	Cost	w/ OH & P
104											
105	SITE UTILITIES										
106											
107	Water Main - Supply	400	LF								
108	Trench Excavation W/Hyd. Exc.	800	CY			0.053	42.4	\$2,201	\$2,293	\$4,494	\$5,168
109	Backfill In Trenches	800	CY	\$14.00	\$11,200	0.053	42.4	\$2,201	\$2,293	\$15,694	\$18,048
110	Pipe Bedding	90	CY	\$19.80	\$1,782	0.050	4.5	\$234	\$293	\$2,309	\$2,655
111	DI Pipe 12" CL52	400	LF	\$18.00	\$7,200	0.400	160.0	\$8,305		\$15,505	\$17,831
112	Connect To Existing	1	EA	\$1,000.00	\$1,000	16.000	16.0	\$830	\$65	\$1,895	\$2,179
113	Pressure Testing	400	LF			0.030	12.0	\$623		\$623	\$716
114	Č										
115	Subtotal: SITE UTILITIES: Cost based of	on 400 SF	***************************************		\$21,182		277.3	\$14,394	\$4,944	\$40,520	\$46,597
116	Average Unit Price for this division is: \$1		F		,			, ,	. ,-	,	4,
117	Average Labor Rate for this division: \$51										
118											*****
119	SITE SECURITY	1	LS								
120											
121	Security Cameras In Ext Housing	2	EA	\$3,500.00	\$7,000	8.000	16.0	\$869		\$7,869	\$9,836
122	Mounting Poles & Foundations For	2	EA	\$1,600.00	\$3,200	7.143	14.3	\$776		\$3,976	\$4,970
	Above			, .,	*-,			*		40,0.0	4 1,57 5
123	Circuits To Existing	500	LF	\$2.00	\$1,000	0.129	64.5	\$3,502	\$2,000	\$6,502	\$8,128
124	•			7	* .,			40,002	4 =,000	\$ 0,002	ψο, .20
125	Subtotal: SITE SECURITY: Cost based	on 400 SF			\$11,200	***************************************	94.8	\$5,147	\$2,000	\$18,347	\$22,934
126	Average Unit Price for this division is: \$57.41 per SF				4 , 2 0 0		0	ΨΟ, 117	Ψ2,000	Ψ10,017	Ψ22,004
127	Average Labor Rate for this division: \$54										
128		po									
129	VISITOR KIOSK	400	SF								
130	Foundations	400	SF	\$7 .43	\$2,968	0.312	124.6	\$6,405	\$162	\$9,535	\$9,535
131	Slab	400	SF	\$2.40	\$959	0.054	21.6	\$1,110	\$60	\$2,129	\$2,129
132	Kiosk	400	SF	\$45.25	\$18,077	1.007	402.3	\$20,678	ΨΟΟ	\$38,755	\$38,755
133	MOOK	400	OI .	Ψ43.23	Ψ10,011	1.007	402.3	φ20,076		φοο, <i>ι</i> οο	φοο,/ 55
134	Subtotal: VISITOR KIOSK: Cost based	on 400 SE			\$22,004		548.5	\$28,193	\$222	\$50,419	¢50.440
135	Average Unit Price for this division is: \$1		_		φ ∠ ∠,004		548.5	Φ∠0,193	 本 と と と と と と に に に に に に に に に に に に に	Φ 50,419	\$50,419
136		•									
130	Average Labor Rate for this division: \$57	1.40 per nou	Γ	-							